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Report of Cases—Surgical and Non-surgical

First Semester, Sept. 15th—Jan. 15th

DR. HOWARD M. REAM, Senior Interne

EYE

NOT OPERATED

Arcus Senilis	7
Buphthalmos	2
Conjunctivitis	12
Conjunctival and Choroidal Hemorrhage	5
Corneal Ulcers	11
Corneal Staphyloma	2
Cyclitis	4
Cicatricial deformity upperlid	5
Cicatricial deformity lowerlid	1
Cataracts	
Posterior Polar	2
Juvenile	7
First and Second stage senile	11
Traumatic	4
Membraneous	1
Third stage—senile	33
Exophthalmos	10
Glaucoma	
Acute	4
Chronic noninflammatory	51
Congenital	2
Hyalitis	10
Iritis—acute and chronic	14
Keratitis (Interstital)	11
Stenosis Tear Duct	5
Occlusion of Pupil	3
Optic Atrophy	15
Pink Eye	2
Posterior Synechia	14
Retinitis	
Hemorrhagic	5
Neuro-retinitis	2
Detached retina	2
Scleritis	3
Episcleritis	1
Amblyopia	23
Pannus	7
Blepharitis	27
Foreign bodies	dozens
Gonorrheal Ophthalmia	7
Trachoma	9
Pinguecula	2
Ptosis (paralytic)	2
Coloboma of Iris (congenital)	2
Aphakia	24
Strabismus	21
Artificial eye fitting	3
Nystagmus	4
Refractions	132

OPERATED

Cataract Operations	
Senile	15
Membranous	1
Juvenile	4
Enucleation of Eyeball	3
Iridectomy	24
Keratectomy	5
Tatooing Corneal scars	6
Trepanation of cornea	3
Needling Hyaloid membrane	2
Skin graft for Symblepharon	2
Pterygium	5
Pannus	2
Xanthelasma	2
Entropion	2
Ectropion	1
Trachoma (radical)	2
Extirpation Lac Sac	3
Strabismus Operations	6
Giant Magnet Operations	2

EAR

NOT OPERATED

Deafness	
Nerve Degeration	91
Fixation	88
Tubal	144
Ear Wax removed	dozens
Eczema of External auditory canal	7
Mastoiditis	
Acute	12
Chronic	12
Myringitis	4
Suppurative Otitis Media	10
Labyrinthitis	3
Furunculosis	many
Congenital defects pinna	2
Congenital atresia canal	1

OPERATED

Exostoses	2
Mastoid	6
Ossiculectomy	3

NOSE

NOT OPERATED

Necrosis of Antrum	11
Osteomyelitis of Antrum	5
Rhinitis	
Acute	116
Atrophic	15
Hyperthrophic	89
Sinuitis	
Acute	26
Chronic	31
Septum, deflected	28
Erosions	9

OPERATED

Caldwell-Luc operations	8
Exenteration of ethmoid cells	2
Fractured nose reduced	3
Polyps removed	12
Submucous resection	8
Hump nose	3
Saddle nose	2

THROAT

NOT OPERATED

Bronchitis	17
Hare-Lip and Cleft Palate	6
Papilloma of Vocal cord	6
Pharyngitis (acute)	18
Tonsillitis (acute)	12
Tonsillitis (chronic)	45
Tic Douloureaux (Alcoholizations)	18
Adenectomies	24
Cleft Palate	2
Hare-Lip	2
Desiccation of pharyngeal glands	3
Tonsillectomies	
Local	47
General	18
Tracheal granulations excised	1
Fulgeration of tonsil remnants	5

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Journal of Osteopathic Ophthalmology, Rhinology and Otolaryngology

Columbus, Ohio

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EDITORIAL

DR. CHARLES M. LARUE, *Editor*

The first requisite for becoming an eye, ear, nose and throat specialist is a predominating, overpowering and constant interest in and desire for the necessary knowledge, equipment, arduous work and perplexities connected therewith to the exclusion of all other specialties. Not that this work does not dovetail and harmonize with the other specialties, but that it is all one can master properly only by concentration and exclusion. In other words, a "Jack of All Trades" can not reach the top in eye, ear, nose and throat work. To be content to remain at the bottom is in itself a disqualifying point.

The second in importance of requisites, according to our way of thinking, is the desire to be of the greatest service to humanity and good health, to the exclusion of the financial charm. For those who are attracted by the money making phase, there may be great wealth or sad disappointment, dependent upon the ability to advertise and put on the show. At any rate, it is not an altruistic motive and is sure to lead to regret and isolation. Most of the busiest, most highly skilled and trained eye, ear, nose and throat men, though they make large incomes, are relatively poor financially. They give so freely of their time and money for special study, research and equipment and do so much for charity and to help others that as a rule they have very little left for themselves. They seem to lose sight of that feature of the practice. Perhaps, they are so ingrossed in the real science and knowledge of their work. By that we do not mean that they are paupers, far from it, but they are not men of wealth, commensurate with their earning power. As business men they are failures and are in the A class of good suckers. The work is all-absorbing, and a ravishing and exacting master for those who seek to master it.

To be a worthwhile eye, ear, nose and throat specialist, one must study, think, write and work constantly. To drift along in a narrow groove, riding a pet hobby to death is getting nowhere fast. It goes over big for a while then while you are resting peacefully in the lap of luxury, along comes reason and failures to knock your props and leave you suspended in thin air without logic and scientific proof to absorb the shock of the inevitable fall awaiting just around the corner.

The third requisite is the desire and willingness to help in any way possible your colleagues to gain any knowledge and special training within your power to impart. This may be done through training, writing, demonstrating and teaching. It may be done by supporting, attending and taking part in our associations. Persons who have worth while knowledge should pass it on to those striving to climb the ladder. The big men all do this cheerfully, many of them without the hope of receiving anything new in return. May

seem queer that this should contribute to one's success, but as proof, they all do it. Seems that the less selfish ones go the highest.

There does not seem to be an accepted yardstick or rule by which to measure success. Some measure it by the bank deposits, some by the make of automobile, some by the number of operations and treatments daily, some by the unlimited knowledge displayed, some by results obtained, some by claiming fatherhood of this or that, some by the charity work done, some by the size and elegance of the office and some by this or that. Just what should constitute the measure of success is difficult to determine, but perhaps a reasonable consideration of all consistent with the individual's environment and peculiar requirements, so long as he is not lopsided in any particular phase.

For those who have not started out upon this alluring and ever demanding career, allow us to make at least one suggestion, and that is, to start right and go straight in a definite course, always looking to higher altitudes.

A correct start can be made by spending one full year post graduate internship in a good clinic under competent osteopathic supervision and guidance. It is seriously to be doubted if a less auspicious and thorough training justifies being classified as competent. No graduate from a general course of therapy has the equipment of learning, training and experience to be adequate for this work. He merely has a foundation on which to start building. Even after a full year post graduate in eye, ear, nose and throat, he just begins to realize how little he knows. Usually those who know the the least are most satisfied with themselves.

After graduation from such a course of special post graduate training in which diagnosis, treatment and surgery have been taught to and the operations actually done by the student and he emerges forth, an eye, ear, nose and throat specialist, the end is not yet. The diagnosis, treatment and surgery will continue to be a serious problem to him; to be constantly improved and changed for the better by his successive experiences of success and failure.

The Clinics of our Osteopathic colleges and some of our eminent specialists are open to those with the desire, intelligence and ambition to enter this field. The opportunities are numerous and great in this field for the well equipped. For anyone now in the practice or anyone contempating entering it, to equip himself as suggested and to add to his already large library some of the splendid books constantly coming on the market bearing upon this subject, there is unlimited opportunity. But for God's sake and the sake of Osteopathy, don't take a three day's or a three week's course and then announce yourself an eye, ear, nose and throat specialist or a specialist of any sort.

Walter B. Pitkin in his "Psychology of Happiness," indulges in a fascinating discussion of the weakling millions that flock to fake psychologists and mind doctors who undertake to jazz them into lifting themselves by their own boot straps.

"The Follies"

Dr. T. J. Ruddy, *President, Los Angeles*

Education of The Specialist

In the preceding number our President reviewed the degree of animation we have been evidencing as educators of the public and charged us with dereliction of duty. He branded us as blind to the opportunities which are about us to educate the laity, and especially the dentist and optometrist.—Editor.

Our Journal has had insufficient funds to be published monthly or to employ a full time editor and business manager. As a result its function has been impaired and our growth stunted.

The pages of our Journal have been blessed with "material" furnished largely by convention papers. Program Chairmen have diplomatically catered to the neophyte, the young hopeful, in an effort to increase our numbers, and in this we have in a small way succeeded.

No longer is the practician who seeks to become a specialist satisfied with theoretical papers as an entry to his future labors. His desire is to learn *how to work;* not to browse over so-called "original" research (?) that merely consumes his valuable time. Have an article in each issue that will teach the G. P. the modus operandi of diagnosis and treatment. Teach him that a group of symptoms centering about the eye are but expressions of function by the several structures that constitute the eyes as single, and as twin organs, whose purpose is single vision (binoculor) without an abnormal expenditure of energy. Impart to him a system of thinking whereby he may be able to segregate all the facts concerning the fundus (retina, choroid, optic nerve, blood vessels) through the proper use of the Ophthalmoscope (adjustment of lens used, daylight, candle light, red-free light, etc.) ocular miscroscope slit-lamp, perimeter, campimeter, Snellen charts, etc. State the information that each method will procure and the relation of that information to treatment. Deal with duction tests, balance tests, amblyscopic findings and their relation to the headache, blurring fatigue, "heavy lids" and nervousness of which the patient complains. Teach him the scope of errors of refraction as etiological factors in local and general symptoms, and impress upon him the dangers of a faulty refraction and the ease with which errors can be made. Visualize for him the dreaded glaucoma, the frequency with which it occurs, the common occurrence of an error in diagnosis, and the expensiveness of loss of vision, not only to the blind but to the diagnostician and therapist whose enthusiasm to do, too frequently, exceeds his efforts to know. Duplicate this story, many times, on the other divisions of our specialty and if the reader is honest with himself and with his patients, his conscience, now partially educated, will guide him past the pitfalls of unpreparedness to one of our schools for graduate training or to counsel with a fellow osteopath who is prepared, if the assistance is available.

This character of instruction may be reinforced with a section of the Journal devoted to "Practical Helps for the General Practitioner." Under this captaion may appear a "group of symptoms" implying most commonly the presence of simple or compound hypermetropia, and make recommendations. Another "symptom group" indicating glaucoma. Make recommendations. Still another group evidencing convergence insufficiency and the almost incurableness of the condition. Recommendations. Carry out this program for the anterior and posterior sinus groups, and, no less interesting are the "pain groups," "fullness," "noises," etc., in relation to ceruminous accumulations in the eternal ear, furunculosis, myringitis, otitis media and mastoiditis.

Another series of educational "Helps" is the citing of "methods and means" for given complaints whether it is equal parts of camphor water (Aqua Camphora), witch hazel water (Aqua Hamamelis) and Aqua Boracici, for a temporary "burning" in the eye after a long auto drive or a boat ride on a bright day or a sleigh ride on a bright snow, or, whether the symptom is a watery rhinorrhea of nervous origin, or reflex to an irritating devitalized tooth, an atrophic epipharyngitis-areata crust, an acute cervical lesion or an over indulgence in cucumbers, and you choose to advise equal parts of Ephedrine 3% and a 10% solution of Neosilvol as a nasal spray until the cause can be corrected.

These are problems of the Education Committee or Bureau—to program and to perform, to educate in its true sense, if our Journal is to be a factor toward the building of efficiency in the general practitioner. It is a step in the right direction, unless we are ready to accept a diminishing personnel in our own ranks—and its consequences.

The major problem of this committee on Education is at home among ourselves. We are criticised by members of the Osteopathic profession as being not osteopathic and no two critics agree on what is and what is not osteopathic. One group would admonish us that the osteopathic profession does not need specialists. They tell us that the training of men and women along lines of effort that will prevent them from giving spinal adjustments to their patients diminishes the ranks of those who are really practicing osteopathy and holds from the patient the true and full value of osteopathy and its practice.

This is an unfortunate and unfair charge and may be explained on the grounds of insufficient education of those offering the criticism. We do need men and women whose knowledge of special parts of the body exceed that of the general practitioner. The latter's scope is too great for him to comprehend all of the methods for ascertaining the facts necessary to make an accurate diagnosis and administer proper treatment. Surely there are few who could master roentgenology, its application to radiography and radiotherapy; radium and its radiation values and dosage in all of the channels of its use; the modalities in other branches of physiotherapy; gynecology surgically and non-surgically; pediatrics and its problems of social economy as well as its problems of therapy; neurology with its brain and cord

surgery; orthopedics and its legion of apparati, mechanics, technique of osteoplasty and a myriad of special angles.

The government in its observations have planned the wiser course by departmenting its Farm Bureau into a service of Fertilization, Irrigation, Soil determination, Pest control and other sections in tree husbandry each under the direction and performance of a specialist.

The practice of Ophthalmology has never been encompassed satisfactorily by any one individual, in fact, a consultation of many is required frequently in order that no fact essential to careful diligent treatment might be overlooked. What is true of the subject to which I have alluded has its counterpart of realism in the Ear, Nose, and Throat specialty not to speak of the professions of music, law, art, and literature.

Our general practitioners are doing a grand work but no more exemplary in the application of the etiological concept than those in our own specialty. I firmly believe that the great majority of our members who limit their practice to the eye, ear, nose and throat administer spinal adjustments even daily when the patient is required to have daily service as in acute iritis, sinuitis, otitis media and similar pathologies. In addition to correcting muscular, ligamentous, and bony lesions of the neck and upper dorsal and providing a general osteopathic practitioner for general needs, our surgeons are doing a distinctive work in preoperative and postoperative osteopathic adjustments, and our technique, through the elimination of knives, scissors, snares, saws, hammers, chisels, etc., in throat, nose and mastoid surgery should be a recommendation for conservation in health and life, *and our patients haven't been referred to an M. D.,* whose surgery, as one G. P. stated recently "would suffice quite as well."

Yes we need specialists and we must educate them, and we must educate the general practitioner that he needs us *and more than he needs the M. D.,* for the surgery he is unprepared to give the patient and the public who have elevated us to the social, professional and economic position we hold in the world today.

(To be continued)

NO FRIEND OF HIS

Usher (to cold, dignified lady)—"Are you a friend of the groom?"

The Lady—"No, indeed! I am the bride's mother."

BEAUTIFUL BUT WISE

Conductor Haney: "She seemed like a good sensible girl."

Brakeman Henry: "Yeh, she wouldn't pay any attention to me either."

Dr. Moore: "Where will you be at dinner time?"

Dr. Goodfellow: "At dinner."

Electro-Coagulation of Tonsils

By C. C. Reid, *Denver*

Editor's Note—We publish this very complete and comprehensive article on Electro-Coagulation of tonsils because of its prominent source and its many good points. The portion dealing with tonsil examination, pathology and diagnosis is especially good and the portion dealing with Electro-Coagulation is complete though technique and claims differ widely with the different technicians.

Personally we are not in sympathy with this method of tonsil eradication because of remnants of tonsils, capsule fragments, pus pockets and scar tissue left in all throats observed which have been treated this way. Furthermore, we see no reason for taking several months for doing something which can be done surgically in as many minutes with little or no shock or loss of time and no chance of recurrence.

For those who have not the skill and technique for doing complete, bloodless and simple surgical tonsillectomy, there is good reason for adopting this or any system which will avoid the distressing and disastrous results following poor throat surgery but for the real clever throat surgeon there is no reason.

Like all other remedies, electro-coagulation of tonsils must prove its worth by test of time and results or join in the great procession to oblivion of most of such revolutionary discoveries. We do not feel justified in subjecting our patients to experimentation.

That is why we question Dr. Reid, knowing him to be a good surgeon.

THIS method of removing the tonsils is so well adapted to most cases that it tends to grow more and more popular, especially in selected types which will be outlined later in this article. My prophecy is that it will become more popular even in numerous other cases where the enucleation operation could be done just as well. The operative method of removing tonsils has been reduced to such an exact science and the technic is so refined in the hands of the best operators, that one might ask the question, "Why seek another method for the removal of tonsils?"

How To Examine and Diagnose a Tonsil

Simply looking into the throat is not sufficient for the examination of the tonsils. If we stripped the clothes off the chest and looked at it, then tried to make a diagnosis of the condition of the contents of the chest, anyone would say the method was entirely inadequate. However, it is just about as reasonable to make an inspection of the chest and thereby made a diagnosis as it is to make an inspection of the throat and form a diagnosis. This is just the thing a lot of doctors do, however.

When we examine the chest, we take four or five steps before we consider we have completed a diagnosis there. When we examine the throat, there are at least three steps which must be taken before a diagnosis should be suggested.

First Step: Inspection

Inspection of the throat may reveal several things. There may be a false membrane in sight; there may be pus exuding from large open crypts of the tonsils; there may be greatly enlarged tonsils; there may be varying graduations of redness in different localities.

It happens, however, in nearly all cases, there are no false mem-

branes; there are no extreme conditions of redness; there may be no tonsils in sight; there may be no pus showing anywhere; and yet there may be an extreme infection of a submerged tonsil. Mere inspection often causes doctors to pronounce the tonsil negative. Inspection in most of these cases will reveal a line of redness on the edge of the anterior pillar of the tonsil.

Skillern said, "We have found from numerous cultures that the anterior pillar which shows acute inflammation at its edge, the redness extending outward to end in a sharp line of demarcation, is usually due to streptococcal infection; whereas ,if the inflammation gradually fades out of the anterior pillar, the staphylococci are found deep down in the tonsillar crypts."

Observation of this red line may be seen on most chronic infections of the tonsil. This may arouse a suspicion of diseased tonsils when nothing else is noticeable.

Second Step: Gagging Patient

The patient may gag. If he does not gag readily, he must be made to gag. With this gagging. frequently, the tonsil will show when otherwise it would not. Gagging pushes the tonsil out into the throat and often shows wide open crypts filled with debris, food particles, and, oftentimes, free pus.

Third Step: Compression of Tonsil

The tonsil must be squeezed. I prefer a dull tonsil compressor rather than a small wire or hook. The Ruddy Tonsil Compressor which is curved to be used as a pillar retractor also, is one of the best on the market. The Hiss tonsil compressor is also a very good one. The tonsil compressor should be placed on the anterior pillar and as the patient gags, pressure should be made against and toward the posterior pole of the tonsil. Also retract the anterior pillar. With the gagging and the squeezing often the tonsil debris and pus will be dislodged from the crypts when otherwise they would not.

The compressor should be moved to the lower part of the tonsil, to the middle, and to the upper third and the top; otherwise pockets of pus may be overlooked and the tonsil pronounced innocent when it is extremely guilty. I have had cases that required pressure from all directions and sometimes applied three, four, or five times as the patient gagged, before the pus showed up.

Most diseased tonsils are overlooked because of the lack of sufficient and thorough examination. By going through these three steps, the examination is made reasonably complete and not many diseased tonsils will be overlooked in the diagnosis.

There are certain conditions and diseases that contraindicate the operation, as:

(1). Valvular heart disease.
(2). Myocardial weakness.
(3). Angina Pectoris.
(4). Broken Compensation.
(5). High blood Pressure.
(6). Chronic Arthritis.
(7). Kidney Disease.

(8). Hemophilia.
(9). Tuberculosis.
(10). Acute Syphilis.
(11). Many cases of old age.
(12). Diabetes.

It is known that diabetics do not heal readily and yet it is essential for their welfare that infected tonsils be removed, in many instances.

All these conditions can be overcome by the Electro-coagulation of Tonsils under proper conditions, with the right kind of machine, a trained doctor, with the proper technique, and the treatment rightly given. The worker can continue to work and his economic condition need not be disturbed except for a few minutes to come to the office and have his Electro-Coagulation and go on to work.

He may work all day—do carpenter work, clerical work, tend to a mechanical job, do farming, go to school, or follow most any occupation—without any interference.

The patient who does not want to submit to an operation can have the Electro-Coagulation and suffer no pain or inconvenience except a slight sore throat. The word operation need not be mentioned. He is merely having his tonsils coagulated and gradually allowing them to shrink away.

The persons with the various heart diseases will not be afraid. Electro-Coagulation is not contraindicated in any of the conditions which have been mentioned. There is no shock; no danger of hemorrhage. The only way this can happen is where there is an anomaly in the anatomy or poor technique on the part of the physician. There is no danger of secondary infection. Trauma is eliminated. Scar tissue is scarcely noticeable. Embolism, pneumonia, and lung abscess following Electro-Coagulation have never been reported. Sluffing occurs only in tonsil tissue, if at all. If the treatment is properly given, very seldom is there any fever of a toxic nature occuring.

There is no anesthetic used except a little swab brushed over the tonsils and near parts of the throat.

Is Electro-Coagulation Successful In Removing Tonsils?

Georges Portmann, of Bordeaux, France, has been removing tonsils by electro-coagulation with fine success since 1913. Dr. G. A. Dillinger, of Pittsburgh, uses electro-coagulation almost as a routine for all his tonsil work. He reports on one hundred and fifty cases in the Medical Journal and Record of May, 1927. Dr. Samuel Ruff Skillern, Jr., of Philadelphia, read a paper before the Virginia Laryngological Society, April 28, 1928, at Newport News, Virginia, at which he advocated the Electro-coagulation of tonsils in selected cases. Dr. John Leo Hansen wrote an article on the subject, "The Non-confining Operative Treatment of Diseased Tonsils," which was printed in the November Journal of the A. C. A., Page 135. He reports on a hundred cases. Others in the Osteopathic profession have written on this subject and numerous articles have appeared and reappeared in the medical press explaining and advocating electro-coagulation for the removal of tonsils.

It is not an experiment any longer, nor is its use dependent upon the emoluments derived from it, any more than the regular surgical operation for the removal of tonsils depends on the money which people pay for it. It is a matter of training, good judgment, and technique in the use of a thing that is scientific and effective.

In my own experience, I use the electro-coagulation not only for tonsils but for naevi of a certain type, warts, moles, and redundant tissue about the eye, ear, nose, and throat. I have had sixteen cases of electro-coagulation of tonsils. Fifteen of them are finished. All are in good shape as far as I can tell at the present time. They got rid of their constitutional symptoms very similarly to what they do when the regular tonsil operation is performed. We had an average of about three treatments on each tonsil. This would make about one hundred and twenty treatments.

One elderly lady who was suffering from a serious disease when we began, had two treatments on each side and was almost through with her electro-coagulation treatment. She died from her other trobules before the electro-coagulation was finished. I had no reason whatever to relate her death in any way to the electro-coagulation of tonsils. She had but very little reaction and no pain as the result of her tonsil treatment. If her death was in any way related to her tonsils, it was because they had not been removed long ago.

Our general rule is to treat one tonsil at a time, then wait a week and treat the other one, and continue that way until the job is finished. By doing it this way, we have never had any very disagreeable reactions or serious swelling of the throat. In one case we treated both tonsils the first treatment and went rather deeply. Following that particular treatment there was considerable edema. The patient had a disagreeable reaction and had to stay in the house two or three days, not necessarily in bed. The coagulation did not go outside of the tonsils and the results were perfectly good. A little follow-up on the tonsils once after that and the case was completed.

No one, that I have ever heard of, doing this work says that it is "fool proof"; but all say it gets results, eliminates complications so often met in the surgical operation, and solves the problem where the surgical operation is contraindicated, all provided the doctor is properly trained and uses the right technique with good judgment and precuation.

Why Some Have Failed

We stated at the beginning that electro-coagulation of tonsils is neither simple, nor is it easy. Doctors who have learned the operation so they know how to do it well, make it appear both simple and easy, at times, but they all say the general run of tonsillectomies are not simple or easy but require real skill and definite and detailed training in order to do a good tonsillectomy.

The same rules apply to electro-coagulation. Fine work consists in the refinement of the technique. Anybody can hook up a machine and push a needle into the tonsil and turn on the current, but the real work comes in knowing the pathology of the field and how he is

going to handle his technic to get rid of the pathology and not damage any of the nearby structures.

Objections to electro-coagulation usually come from those who have never used it, or have had only a meager observation and that perhaps upon cases that were not properly done.

Electro-coagulation was severely criticized in an article in the Journal of the A. M. A., June 23, 1923. The doctor judges from his experience as to the merits of electro-coagulation. Fortunately, he describes his technic. He used the needle in only one case, leaving it in fifteen seconds and made three punctures of the tonsil. He had a very serious and stormy time taking his patient through to where healing could occur. Any one who knows anything about the current and anatomy will readily see how he would get bad results, as the proper time to leave the needle in the tonsil is from one half to two seconds. The average is about one second. In his next six cases, he tried another method. He used a button, seven millimeters in diameter, on the tonsil from ten to fifty seconds. His technique was wrong from every standpoint. Of course, he was not sold on the electro-coagulation of tonsils. Failures in this work can happen with a technique greatly improved over the one this man used.

Technique of Electro-Coagulation of Tonsils

I have the Fischer machine, type G 2, amperes 6, cycles 60, volts 110.

This is the machine pictured and used by Dr. John Leo Hansen as explained in his article in the November, 1929, Journal of the A. O. A. This is a machine that I have seen used by practically all the men I have seen doing work of this type. This machine does the work. No doubt, there are other good machines, but I am not qualified to speak in regard to them. This machine renders a high-frequency current. We use the bi-terminal D'Arsonval which is of low voltage and high milliamperage. We attach the machine, shut off the spark gaps, and make a dead short across the low voltage terminals, then open the spark gaps to produce the required milli-amperage. We use a three thousand milliamperage reading on the meter. With the spark gaps very close, this will give a reading of approximately three hundred and fifty milliamperes when the patient is in the circuit.

We attach the indifferent pole to a piece of block tin applied on the patient's upper dorsal region. The block tin is moistened with soapy water and molded to the back. This makes good contact and prevents any disagreeable sensations from the attachment. The cord from the low voltage pole has attached to it a hard rubbed handle for holding the needle.

The needle is bent at an angle of about forty-five degrees, three-eighths of an inch from the tip. It is insulated with a rubber jacket to the bend in the needle.

The tongue depressor should be in the hands of an assistant. It should consist of glass or wood; even metal is perfectly safe, provided the doctor is skillful in his technique. The doctor holds the

needle in one hand and a hard rubber pillar retractor in the other. He should have a good head-light so he may view well the field.

For the anesthetic, all that is necessary, is as follows: Moisten a cotton applicator in a ten per cent solution of cocaine and swab the tonsils a few times, about two minutes apart. We have tried different strengths of solution, and we have come to adopt the use of cocaine powder. We dip the moistened applicator in the powdered cocaine and rub the tonsils and parts of the throat near by. This done two or three times, gives us a good anesthetic—sufficient for the purpose. We have never had any trouble with the anesthetic.

There is a foot piece attached to the machine for the control of the current. The procedure for the operation is as follows:

The assistant depresses the tongue, the doctor retracts the pillar and inserts the needle into the tonsil tissue from one-eighth to three-eighths of an inch. He steps on the foot switch and the current is left on from one-fourth of a second to two seconds. As soon as he sees a white area appear around the needle he releases the current. He enters the tonsil tissue at another point near by. He makes these punctures over the tonsil until the surface looks light colored or coagulated. The number of punctures will vary from six to fifteen, according to the size of the tonsil. The area should now be painted over with acri-violet or iodine-glycerine solution or atomadine.

It is perfectly sterile and if no antiseptic is put on, there is practically no danger of infection.

The patient returns in a week or ten days to have the other side treated similarly. He might use an aspirin gargle two or three times a day for the first three days. However, this is not essential. Two to five treatments on a side usually clean up the tonsils completely.

Precautions

At the last the treatment should be made shorter. The milli-amperage should be reduced to some extent. A tonsil compressor should be used while the patient gags. Careful observation should be made under these conditions for any lobes or pieces of tonsil that might be left. Specific attention should be given to the upper lobe as it is often submerged and high up in the palate.

Avoid too deep penetration at any time. If the coagulation should extend beyond the capsule of the tonsil there would be adhesions produced in the muscles and between the muscles and the capsule. Keep definitely and specifically in tonsil tissue. Do not go into the pillars or the muscles of the throat.

The capsule of the tonsil is not removed by this operation. If the technique is done properly there will not be a dry throat, and scar tissue will scarcely be noticeable.

The heat from the needle spreads about one-eighths of an inch from the needle. By realizing this and handling the current properly all remnants of tonsil tissue can be removed and yet the pillars not be damaged. The capsule will not be caused to adhere to other structures. There will be no hurtful increase of scar tissue. If during

the operation a slight bleeding should occur it is quite readily controlled with the coagulating needle.

Some Cases Should Be Operated

Children so young that it is necessary to use a general anesthetic should be operated; although Dillinger says he uses electro-coagulation under these conditions. Some cases need immediate eradication of infection. The complete operation done at once would properly serve the purpose more readily.

Many persons prefer the operation, merely from the conservative standpoint, because it is something that is established. It is over with more quickly and is satisfactory in the minds of many. If it is not contraindicated by conditions previously mentioned, the patient's wishes may be properly considered conscientiously by the doctor. How much of this work is done will depend almost entirely on the doctor's apparatus, training, technique, experience, and how much he is sold on it himself.

There are three methods of using electricity for the treatment of tonsils. Fulguration, desiccation, and electro-coagulation. Fulguration is using the Tesla spark; it is uni-terminal, medium voltage, and medium milliamperage. Desiccation is the use of the Oudin uni-terminal current, high voltage and low milliamperage. The spark is sprayed from the needle onto the tonsil. It dehydrates or mummifies the tissues. A number who have conscientiously tried these out find them inadequate for the removal of tonsils. These modalities might readily remove moles, warts, and some growths, but for bodies as large as tonsils they seem to be entirely impracticable.

The Electro-coagulation method using high-milliamperage and low voltage seems to be the one most universally used and is gaining in favor continuously, in the minds of the profession.

Other Uses of Electro-Coagulation

Electro-coagulation may be used quite effectively in acute tonsilitis, on chronic ulcers of the larynx, malignancy of the throat, benign tumors of the throat and tongue, lupus of the nose and face, and redundant tissues in the nose.

A recent case, a wife of a prominent osteopath came to me with a nose almost blocked. She gave a history of sinus trouble dating over some years. Close examination revealed a redundant mucous membrane in the upper part of the vestibule of the nose, extending far back in the region of the middle turbinated bodies. A few treatments with electro-coagulation cleared up this membrane on each side of her nose. Great comfort and satisfaction was the result. Sinuses seemed to have been of secondary consideration in the case. The removal of this redundant membrane of the nose would have been a difficult proposition because of its wide distribution and the extent of the area that it covered. It became a comparatively simple matter with the proper technique of the electro-coagulating needle.

References

1. Dr. John Leo Hansen, November, 1929, Journal A. O. A., page 135.

2. Samuel Ruff Skillern, Jr., M.D., of Philadelphia. "The Last Word in Tonsillectomy," read before the Virginia Laryngological Society, April, 1928.

3. G. A. Dillinger, M.D., Pittsburgh. "Technique of Tonsil Electro-Coagulation." Reports on one hundred and fifty cases.-Medical Journal and Record, May, 1927.

4. F. L. Wahrer, M.D., Marshalltown, Iowa. March, 1929, Eye, Ear, Nose and Throat Monthly. "Electro-coagulation of the Tonsils."

5. L. L. Doane, M.D., Butler, Pa. "A Practical Method of Tonsil Coagulation," reprinted from the Electron.

6. Georges Portmass, Bordeaux, France, writing since 1913 on Electro-coagulation of Tonsils.

December 24, 1929.

Dear Dr. Reid:

Just received your splendid letter of commendation and congratulation for the last issue of the O. and O. L. Journal and want to assure you that I thoroughly appreciate this word of approval from such a reliable source.

I received your article on Coagulation of Tonsils and was disappointed in that it gave so much of compilation instead of personal experiences.

Was surprised to see you attacking throat surgery in order to substantiate your reason for adopting another method. I had placed you second only to Dr. Ruddy on my list of "all American" tonsil operators.

Thanking you again for your letter and the article, and with best wishes for a Merry Christmas and a prosperous New Year.

I am cordially and fraternally,

CHAS. M. LaRUE.

December 27, 1929.

Dear Dr. LaRue:

Thanks for the comments on my Electro-Coagulation article. My experience backed by those who have had years of experience on hundreds of cases, is the only thing that makes an article on Electro-Coagulation worth while and valuable. My very limited experience would not be worth while for the profession, but the article with all the compilation becomes valuable.

You seem to have misunderstood my drift altogether. In no way did I mean to attack throat surgery. I did not think the article would be interpreted that way. Ninety nine per cent of my tonsil removals right now are done by the regular tonsil operation, which I think you have seen me do.

I am not advocating Electro-Coagulation to the exclusion of throat surgery except where throat surgery is contraindicated or where the patient refuses surgery on account of economic conditions or a fear.

Yours sincerely,

C. C. REID.

Dr. Edward's Corrections

By request the following Corrections by Dr. Edwards of his Forum utterances in last issue, which were overlooked, are given below:

Page 14. This is an open forum. It is your meeting, you may ask any questions you like. You may talk shop all you desire. Do not be afraid or feel embarrassed. Let us make it a good meeting. We come to these meetings with problems, and I am certain we are all eager to try and help solve those problems. Get out your list of difficulties, and let's go to it.

* * *

The discussion of impacted cerumen, or so-called hardened wax, is always interesting, especially cases of repeated attacks of otitis externa and impaired hearing due to impacted cerumen. Eustachian salpingitis and often chronic tonsillitis are causative factors. Swabbing the external auditory canal with compound tincture of benzoin three times a week, digital dilatation of the eustachian orifice, and osteopathic treatment of the submaxillary, cervical and upper dorsal regions have, in many instances, arrested the over-activity of the ceruminous glands of the external auditory meatus. I shall ask Dr. Still (laughter), I mean Dr. Reid to answer this question.

* * *

Page 16. There is another angle we have not considered in the extraction of foreign bodies from the external auditory meatus, and that is the medico-legal phase, which, to my mind, is very important. A foreign body or impacted cerument may close a perforation of the drumhead, or take up the over-relaxation of the tympanic membrane, and the removal of this foreign substance may increase the deafness instead of relieving the condition. It is essential that functional tests with tuning forks be made before and after the removal of a foreign body or impacted cerumen, and that the prognosis be guarded. In brief, do not promise to improve the hearing by the extraction of a foreign body. Furthermore, the removal of a foreign body by a bunglesome operator will do more harm to the canal or drumhead than the foreign substance will itself. I have treated many cases of secondary furunculosis (otitis externa) which were caused by improper technic and illegitimate methods of extracting some foreign substance from the external auditory meatus. It is good treatment to fill the external canal with bichloride of mercury, one to two thousand solution (1:2000), immediately following the removal of impacted cerumen or foreign bodies from the external auditory meatus. This solution will seal the hair follicles which may be opened by the foreign body treatment, thereby avoiding the entrance of extraneous bacteria which would cause a furunculosis. This may be followed by again filling the canal with C. M. P. oil—camphor, menthol and phenol, three grains of each to one ounce of liquid alboline or liquid vaseline.

A very nice and effective method of extracting impacted cerumen is to make a small chink at the side of the hardened wax and use a DeVilbiss spray, fine tip, to fill the canal in back of the hard-

ened wax with C. M. P. oil. The force of the spray will disengage the wax and the foreign body will pop out with no untoward results. I have yet to see a tympanic membrane injured by this technic. This is the treatment used at the medical clinics, St. Louis. Any more questions regarding the treatment of foreign bodies?

* * *

Page 17. I shall ask Dr. Ruddy to discuss the treatment of eye symptoms in Bell's palsy.

* * *

Psychology in the practice of medicine—the way you sell your treatment—to my mind, is a big factor in the proper management of a surgical case. A patient with an inferiority tonsillectomy complex I handle in this way: I tell the patient that I do not use a knife or scissors in the throat, but express the tonsil as one would a cherry stone, or pell it out like an orange, practically without blood or pain. Furthermore, I very often advise the use of the tonsillarvac (tonsillar evacuation tubes) to evacuate the crypts, and simultaneously train the patient for a later tonsillectomy with the Sluder instrument. The tonsillarvac loosens up the tonsil, freeing it from adhesions, thereby making the enucleation procedure much easier and quicker. About six treatments with the tonsillarvac wins the patient's confidence and willingness for a tonsillectomy. Inoperable cases may be freed from focal infection by use of the tonsillarvac in three to six treatments, but I have found it necessary to repeat this procedure every few months or so. I have concluded that enucleation of the tonsil is the sensible and logical procedure, if the patient is in condition for a tonsillectomy and the tonsils are diseased, regardless of the age of the patient. I have not tried electro-coagulation or any other electrical treatment of the tonsil. The Sluder method, which takes but a few seconds to a side, I have found the most effective in my practice. It is up to the operator to select the technic which appeals to him, and develop it. It is not a question of surgical method, but proper enucleation and treatment that will free the patient from a diseased tonsil.

I might say, however, that I have heard of several untoward results obtained by electro-coagulation of the tonsil—secondary hemorrhages due to sloughing—and threatened malpractice suits. One doctor, after spending several thousands of dollars for equipment, junked the whole outfit. He was badly frightened by several bleeders and had to call for help. Perhaps it was a question of proper technic as I have heard others say they are obtaining wonderful results with this new method with no untoward after-effects.

* * *

Hertz' examination of 1,185 school children disclosed tonsillar hypertrophy in about thirteen percent. Fully thirty-three percent of the children with hypertrophy had adenoid growths. The hypertrophy of the tonsils present at six or seven years often disappeared or decreased during the first school years. Most children with hypertrophy of the tonsils in later school years were neither physi-

cally nor mentally below the average and seemed no more susceptible to illness than normal children.

In Zahorsky's communication, "The Remote Result of Tonsillectomy in the Young Child," is offered a summary of the clinical observation of 150 children, aged two to twelve years, who were seen in private practice. He tried to ascertain what effect the removal of the tonsils and adenoids had on the health of the child six months to five years after the operation. He says that nearly all these children were operated on by competent surgeons. Acute catarrhal and suppurative otitis media was found in twenty-one cases. In spite of better respiration, the acute susceptibility of many children to laryngitis remained unchanged. Of the 150 children, forty-nine had one or more attacks of bronchial inflammation within four years after operation. Undoubtedly, pneumonia occurred in fifteen children and bronchiolitis in about twenty-two. Sixteen cases of asthma were found and eleven cases of rheumatic fever, seven cases of endocarditis, five with permanent valvular lesion. There were three cases of diphtheria after operation, and fifteen cases of adenopathy, one or more cervical lymph nodes demanding treatment. In this series of cases one-third of the children showed permanent improvement. Numerous children are naturally immune, and immunization begins at once after birth. Relative immunity is acquired at various ages. The author says that it is his observation that the child beginning his school life without the tonsils is in greater danger of acute diseases than one who still has his tonsils. The tonsils are the first line of defense in the infections of the mucous membranes of the nose and throat. Zahorsky says that the data are inconclusive; first, because the number of the cases is insufficient and, second, because there is no parallel control or children who have not had their tonsils removed. But the clinical impression is definite that the young child is sometimes harmed by the removal of the tonsils. In children under seven years of age, the removal of the tonsils and adenoids should be undertaken only after a careful examination of the child's nutritional and immune condition. A little more knowledge of the pathology of the human body would reduce the irresistible desire to find every tonsil infective and to perform a complete tonsillectomy in every case. In conclusion, however, I contend that if the tonsils are diseased, which may be demonstrated by microscopic examination of the exudate, tonsillectomy is indicated, regardless of the age of the patient. In brief, a tonsil once harboring bacterial invasion is a difficult region to keep free from focal infection, and, as Dr. LaRue so nicely stated, "If you do not take the tonsil, the undertaker may take the child."

Very often enlarged tonsils are due to infected lymphoid tissue in the nasopharynx. Instillations of COLLENE (colloidal silver), fifty percent solution in water, one dropperful in each nostril, three times a day, will free the nasopharynx from this infection, and the tonsillar hypertrophy will subside. Collene is practically the same as ten percent argyrol, but it is stainless, which is essential in the management of a child. Another excellent local treatment is EPHEDRINE SULPHATE, three percent solution in water, three

or four drops in each nostril, three times a day. It is claimed that this solution is a specific treatment for adenoids in the early period. All pediatricians prescribe it. I have used it in my family with gratifying results.

Page 30. It depends entirely upon the findings in the exploratory lavage. Roentgenograms of pus obtained from maxillary sinusitis demonstrated conclusively that the calcium content of pus is always greater in bony sepsis than in sepsis in the soft tissue. In the management of a diseased antrum three kinds of pus may be considered, namely, granular, soluble and flocculent. The exudates of sepsis in soft tissue are, as a rule, soluble or granular. The presence of flocculent pus with high calcium content, is indicative of an involvement of the bony structure—low grade periosteitis (periantritis). I never advise a Caldwell-Luc operation until the conservative intra-nasal irrigation and oil instillations have failed. In my practice I have found that over seventy-five percent of the cases may be cured by the Sluder method—instillations of oleum phenol three times a week, three grains of phenol to one ounce of alboline. One ounce of this solution is injected into the antrum with an antrum syringe through the opening made in the inferior nasal meatus, one inch posterior to the vestibule. Three irrigations of the sinus with normal saline are sufficient for study and observation of the exudates. Sluder contended that repeated irrigations will, in time, produce polypus degenration of the mucosa, therefore should be discontinued polypus degeneration. If the antrum is not freed from infection by twelve oil instillations, a radical procedure is indicated—Caldwell-Luc or any other method that may fit the requirements of the operator. In conclusion, do not be misled by your x-ray findings. Transillumination will often show the presence of sepsis in soft tissue, and in this condition the roentgenogram will be negative. If the clinical symptoms suggest a maxillary sinusitis, exploratory lavage is indicated regardless of the x-ray report. The so-called "Silent Antrum" is often everlooked, also fistula of the maxillary process. Many cases of perception deafness have been materially benefited by proper treatment of a silent antrum maxillary fistula.

Page 34. There is another angle to this question, and that is the medico-legal phase of the problem. The consensus of opinion is that it is criminal negligence to administer cocain, in any form, without having a can of ether close by for emergency use. Ether is the only antidote for cocain toxemia, and many persons are in their graves today because this was not known years ago. At the first indication of cocain depression, inhalations of ether should be begun. It is not necessary to use an ether mask, but merely allow the patient to inhale a little ether from a piece of gauze. Do not wait until the patient is flat on his back, it may then be too late. Ether should be used regardless as to whether the patient has had ether before or not. In brief, it is a physiological antidote, and much quicker and safer than adrenalin or any other antidote. In my practice I am now using luminal, three grains internally, one-half hour before the application of cocain. Some authorities claim that luminal is both a

chemical and physiological antidote for cocain poisoning. I have found it very satisfactory, and much better than morphine and scopolamine.

* * *

Page 35. The post-operative treatment for suppurative ethmoiditis is very important, especially the aftercare of an ethmoidal exenteration. I instruct my patients very carefully not to blow either nostril for one week. I tell them that the orbital plate is very thin and diseased, and by blowing their noses they might blow out their eyeballs (orbital emphysema). It is essential that both anterior nares be packed for twenty-four hours immediately following the surgical procedure, in order to avoid this possibility and untoward result. Furthermore, the field of operation should not be swabbed for ten days at least, to avoid fracturing the orbital plate. Sluder recognized this and advised doing nothing for ten days. He contended that drainage may be supported by instillations of oil, dropper method, not sprays, four times a day. To relieve pain and encourage shrinkage, oil of rose compound (one percent cocain in oil) and oleum phenol (three grains of phenol to one ounce of alboline), one dropperful of each in each nostril every three hours, is an excellent treatment. This is administered while the patient is lying on his back, head hanging over the edge of the bed, in order to allow the oil to reach the ethmoidal and sphenoidal sinuses. Pyramidon, five grain tablets, one every two or three hours, may be used to relieve the headache. Spontaneous orbital emphysema, or accidental emphysema may be relieved by the continuous use of ice packs. It may take three to six weeks to replace on eyeball with this treatment. Orbital cellulitis or retro-orbital abscess rarely occurs if the tissues are kept shrunk with instillations of oil. Probing or swabbing are absolutely contra-indicated and dangerous treatment. I used this Sluder treatment in two cases with gratifying results. Both of these patients disregarded my instructions about not blowing their nostrils for ten days. Dr. Sluder met me on the first case, immediately removed the packing and discontinued the nasal swabbing.

Dr. James D. Edwards,
409 Chemical Building, St. Louis, Missouri.

NOT SO DANGEROUS THEN

"Girls were harder to kiss in your day; weren't they, grandpa?"

"Well, mebbe; but it wasn't so blamed dangerous. The ol' parlar sofa wasn't apt to smash into a tree jest about the time ye got all puckered up."

LIMBERING-UP EXERCISES

They had just met at Atlantic City and were sitting on the beach:

She: "What a wonderfully developed arm you have."

He: "Yes, I got that playing basketball. By the way, were you ever on a track team?"

The Mechanism of the Production of T. B. and Other Infectious Diseases, as Viewed by a Nose and Throat Specialist

By Dr. W. J. Siemens, *Seattle*

As a means of preventing and to a great extent the cure of many common infectious diseases, the knowledge which is being rapidly gained in Nose and Throat work by our Osteopathic Eye, Ear, Nose and Throat Specialists will, no doubt, cause the entire domain of prevention and cure of disease to be revised considerably in the near future. This will be found true especially as regards the prevention of tubercular infections of whatever nature as well as numerous other infectious diseases.

There are certain self-evident facts of daily occurrence, namely, that in spite of our constant fight for fresh air, cleanliness and proper foods, we find disease, poor development and malnutrition everywhere. There must undoubtedly be an excellent explanation for this state of affairs.

The general practitioner in the medical profession regards the prevention of the more common diseases and to a great extent their cure also, from an entirely different standpoint than does the Nose and Throat Specialist, whose view is more mechanical and hence, more efficient and far more practical.

The general practitioner of our own profession frequently wrongly accuses the Osteopathic Specialist of being non-osteopathic and having lost sight of the old doctor's theories as to the cause of disease—that we are narrow, love to operate, etc. There is a greater mechanical element involved in the production of most of the common infectious diseases than has been recognized by the profession as a whole (and I hope to prove my point before I get through with this article. It is an old and well recognized principle that many common species of germs themselves cannot produce disease—the predisposing factor must be present.

What are the predisposing factors? The question arises, are there not two sets of such factors? First, the common factors are those we all meet with, such as the strain and stress of life, worry, exposure, etc. The second, the nasopryngeal factors are the actual means whereby germs accomplish their work, and they are to be found in the nose and throat.

That we must have germs to produce the disease is self-evident, but how the germ succeeds in producing the disease is the question. Undoubtedly, it is brought about, so far as the writer can see, by a chemicomechanical or lesion (Osteopathic) factor. The mechanical factor is of paramount importance when the effect these purely mechanical factors have on inspired air is considered, resulting in such changes, or more properly speaking, absence of changes in the inspired air, and facilitating growth of germ life in all the nasophryngeal structures so as to result in becoming the germ's main leverage in producing disease. That is, these chemicomechanical factors bring

about a state of the body tissues wherein pathological processes may arise—a condition aptly defined as suboxidation. By suboxidation we understand that there is too little oxygen in the body tissues to be compatible with perfect health or the highest degree of resistance. Suboxidation is principally produced in a purely mechanical (Osteopathic) manner by the inspired air being drawn through abnormal nasal fossae or by mouth breathing, resulting in improper moistening, warming and filtering of the air as it passes through the nasopharynx, thus making it impossible for lung alveoli to absorb the oxygen in the proper proportion. The question has been raised, why air passing through the mouth in the case of mouth breathing will result in suboxidation facilitating the growth of germ life in any of the body structures, especially the nose and throat, and resulting in disease, either local or remote.

It is self-evident that air inspired through the mouth will not be properly warmed, moistened and filtered since the turbinate bodies of the nose and not the structures to be found in the mouth are especially intended to perform those functions.

Abnormalities of the nasopharynx are undoubtedly of vast importance in the production or aggravation of many diseases, both local and constitutional. These facts are true of an almost inexhaustible list. As a common example, syphilis may be mentioned. Clinicians will find that the difficult or intractable cases are those afflicted with an abnormal nasopharynx. This is true of both adult and child. Interstitial keratitis in a child with enlarged and diseased tonsils and adenoids is a difficult condition to cure; whereas, in children with normal nasopharynges the condition clears up under the simplest treatment.

To an important extent then, many diseases fundamentally owe their existence, and many others again owe their intensified state, to chemicomechanical factors in the nasopharynx. These facts are due largely to purely mechanical factors found in the nasopharynx, preventing the normal ingress of air. Therefore, we, as osteopathic specialists are as osteopathic as the old doctor himself; i. e. in the final analysis, these pathological states are either brought about or aggravated by purely mechnical factors. These mechanical factors make it possible for the chemical factors to accumulate, and produce actual disease. Should these facts be true, then the nasopharyngeal factors should be given their proper value in producing, aggravating, preventing or assisting materially in the cure of many diseases.

It is just this so called "mechanism" of the production of disease so often overlooked in the nasopharynx that will be found to be the explanation for the existence of much disease, malnutrition and underdevelopment.

In the mechanism of the production of many diseases there are principally two simple, easily understood factors—a third may be involved.

Tuberculosis is not produced, or rather let us say permitted to grow in a healthy body. This is self-evident. Its inception and growth require something fundamentally wrong with the nasopharyngeal tract. These defects consist in young subjects of hypertrophied

and diseased tonsils, adenoids and adhesion bands. In older subjects we find diseased tonsils and adenoids or the remains of adenoids and adhension bands and in addition a third factor—*deflected septum.* These abnormalities produce a diseased nasopharyngeal condition which is reflected on the whole body and this in conjunction with improperly treated inhaled air, which is so poorly absorbable, gives rise in turn to a condition of the body tissues in which germ growth or infection is allowed. These abnormalities act to such an extent in a purely mechanical manner, producing disease by directly interfering with the proper preparation of the air as it is taken in, whether it pass through the mouth as in the case of true mouthbreathers, or through an abnormal nasopharynx, that it is justifiable to refer to the process as the *mechanism* of the production of disease. Thus the general condition is brought about by a mechanical factor, causing a condition of suboxidation or state of lowered resistance. The infective or chemical factor is, of course, of importance, but the degree of its influence depends upon the extent of the mechanical condition.

If sufficient oxygen is taken into the system, it will keep the body well and burn up the dirt inhaled, the germs and toxins absorbed and many other noxious materials gaining access to the tissues. This means not merely drawing sufficient oxygen into the lungs, but its absorption in sufficient quantities by the lung alveoli from the inhaled air. Thus the point of chief importance is the percentage of oxygen the lung alveoli are capable of absorbing from the inspired air. Are these absorptive powers normal or subnormal? These powers can only be normal in the average alveoli when the air is properly prepared, i. e., warmed, filtered and moistened in its passage through the nasopharynx. This presupposes the passage of air through the nasopharynx in a normal manner—certainly not as in mouth breathing. It is not so much the purity of the air that counts, within certain limits, but the amount of air that will be absorbed and pass into the system. The intimate connection between this and the nasofosaetonsillar tissues will be explained. A deflected septum with sinusitis and turbinal hypertrophy prevents the air from reaching the lungs in proper form for absorption in normal quantities. Mouth breathing will do the same, as will hypertrophied or diseased tonsils and adenoids.

Thus a lowered state of resistance of body tissues is produced which permits diseased conditions to become active. A deranged nose and throat is to a larger extent responsible than is generally believed. This deranged nose and throat consists in all cases of primarily three cardinal points: First, tonsils, either hypertrophied or diseased or both; second, tissues found in the pharyngeal vault (adenoids and adhesion bands); third, deflected nasal septum in adults. Hypertrophy of the turbinate bodies with polypi and polypoid degeneration is of importance, this is equally true of various forms of sinusitis which are so frequently met with in the accessory sinuses of the nasal fossae. However, to those who are doing much work along the lines suggested it must become readily apparent that both turbinal hypertrophy (including polypoid degeneration) and sinusitis are merely

both conditions secondary to the evil influence of the so-called three cardinal points.

The turbinates may have to be reduced, seldom removed, and polypi removed. The sinusitis will usually take care of itself, especially in children.

The modus operandi of the production of T. B. and many other infectious diseases varies with the age of the subject, though in its final analysis, practically alike in all periods of life, except in the very old, of the very sick with completely broken down resistance.

In the young it is produced by a mechanicochemical factor, producing a vicious cycle, the child's nose and throat become infected from sources due to its environmental conditions and the first thing we have is a slight cold (discharging rhinitis), light or severe coughs or mild croupy attacks, the tonsils swell up and hypertrophy with each attack and so do the adenoids. The mucus membrane of the nasal fossae undergoes a similar catarrhal swelling; catarrhal ethmoidal sinusitis is present at this stage. The swelling of the tonsils, adenoids and nasal mucus membrane produces a mechanical obstruction to the nasal air passages, interfering with proper nasal breathing and causing mouth breathing, either constantly or intermittently. THIS IS THE MECHANISM.

Two important chemical factors now enter, producing the poisoning of the child, which is practically what it amounts.

First, the direct absorption into the system of toxins or germs, or both, through the hypertrophied or diseased lymphoid and other tissues in the nasopharynx.

Second, and equally as important and to my mind more so, is the production of sub-oxidation, a condition in which there is too little oxygen in the body tissues and blood, insufficient to burn up the toxins or noxious material circulating in the blood or lodged in the body tissues, in other words, not enough to permit the natural protective antibodies of the body to work properly. This condition is brought about by a mechanical obstruction of the air passages.

Suboxidation is recognized in a child ordinarily by the common symptoms of anemia, flabbiness, malnutrition, lack of development, poor resisting power to disease, irritability, restless nights and, etc. A low hemoglobin reading and small red cell count are to be expected. Hence, we have slight colds (rhinitis) with its commonly seen nasal discharge, bronchitis, with its well known cough, laryngitis with its familiar croup, almost the entire range of ear inflamatory diseases, numerous forms of eye diseases, swollen cerbical glands, discharging sinuses, and as the suboxidation becomes greater and the child is exposed perhaps a little more than usual to colds, stress, etc. the more serious conditions of broncho-pneumonia, pneumonia, pleurisy, pericardial and endocardial lesions, nephritic, tubercular infections and also the entire range of so called rheumatic infections.

The vicious circle operates as follows: The more the nasopharyngeal tissues are infected, the greater naturally will they swell, the greater the swelling the greater the interference to normal nasal breathing, the more the child breathes through its mouth, the greater

will be the degree of suboxidation and the more easily will toxins be absorbed from the nasopharyngeal tract to the detriment of the child. Hence, we have the vicious circle leading to the production of the terminal diseases of pneumonia, dyphtheria, T. B., etc.

That these deductions are correct can be proved by proper treatment of the case and notice how the child begins to grow, free from almost all ailments, better at school work, more obedient, loses the listless expression of the eye, has better color and a markedly increased appetite. The vicious circle has been completely and easily broken.

Regarding treatment, that will depend: Removing the original cause is not always sufficient, in fact, the original cause may have ceased to exist long before this time. Proper osteopathic treatment with attention to diet and many of the environmental conditions will take care of some of these causes, others it takes care of only partly—they improve and we too frequently are satisfied with partial improvement. Both parents and doctors deem it sufficient. Where we have true hypertrophy of the nasopharyngeal tissues and disease as well, we get by far the best results by cleaning up the field and then follow with the above treatment in cases where it is indicated.

We must not forget that the majority of deaths in slum born babies and children, and for that matter other classes as well, is originally caused by a condition of suboxidation and lowered body resistance.

In adults a vicious circle is likewise established, resulting in a condition of suboxidation. The principal reason for this is that the adult does not receive the oxygen in the lungs in the proper form, thus producing suboxidation. This is to a large extent by a mechanical disarrangement of the nasopharyngeal organs, causing systemic absorption and lowered resistance and eventually T. B. or other infectious diseases.

In the adult we have again the three cardinal points to deal with: First, tonsils, which may be either chemical or mechanical factors, though usually chemical if there is trouble there. The size of the tonsil in an adult means nothing, very small ones are not infrequently badly infected.

Second, presence of adenoids or their remains, which act almost always by both chemical and mechanical methods in assisting to produce a condition of suboxidation. In young adults we find them present in large amount; in older people there are usually only adhesion bands left, the adenoid tissue proper having atrophied. These bands frequently extend between the vault of the pharynx and the pharyngeal fringal end of the eustachian tubes. The interspaces act as a hatching place for infection and aid to infect the tissues of the nasal fossae and tonsils as well as a direct absorbing foci for the body.

Third, the deflected septum which is the direct cause of more pathological conditions than a casual observer would suppose, most all of the nasal conditions are secondary to it (few, if any, exceptions). Many inflamed throats and some infected throats are due to a deflection of the septum, bronchitis, hay fever, asthma, T. B. and

other infectious diseases are frequently directly or indirectly due to this condition. Since the deflection is primarily a purely mechanical matter, I think we can use the term *mechanism* of the production of T. B. and other infectious diseases.

Some rhinologists claim that with a submucous resection you should also do a tonsil operation. I do not find this necessary in many cases, removing the mechanical obstruction and irritation very frequently the other pathological conditions right themselves without further attention.

The importance of the third factor (deflected septum) lies in the fact that if oxygen is to be assimilated by the lung tissue in normal percentage, it must be properly prepared, that is, warmed, moistened and filtered so that the lung alveoli can absorb the proper proportion of oxygen and give off the normal amount of poisonous material, thereby enabling the body to take up the "safe margin" of oxygen sufficient to burn up the toxins or bacteria absorbed from whatever source in the body. This can only be accomplished by the passage of air through normal nasal fossae.

A person with a deflection of septum (including ridges and spurs, which are only modifications of the deflection) can only derive from one-fifth to four-fifths or less, the benefit from the air in a stuffy, poorly ventilated room than does a person with a crippled septum from good country atmosphere.

The condition of suboxidization in most adults is produced by a state or states of the nasal fossae described. These individuals are mouth breathers, either constantly or intermittently and very frequently unknown to themselves. With the nasopharyngeal structures and tissues in proper relation and state of health, the air is properly filtered, warmed and moistened and can be absorbed by the long alveoli in a normal amount. If the structures are not normal, the air is improperly prepared and suboxidization supervenes.

We have then this vicious circle. The less oxygen the lungs can absorb from the inhaled air, the greater the supervening state of suboxidization, and the more pronounced the latter, the weaker does the resistance grow with the constant absorption of bacteria or toxins or both taking place through diseased tonsils or the tissues in the nasal fossae, and with repeated cold and other ailments, the tissues finally become ripe for the growth of tubercular bacillus and other microorganisms.

The character of the environment to which the individual in subjected must be taken into consideration. The less perfect, the less time will it take to produce diseased condition. The strain and stress of the particular life the individual has to lead is naturally a highly important factor. A careful person with good influence and congenial surroundings will last longer than one not quite so fortunate. Dissipation in those (especially the young) afflicted with an abnormal nasopharyngeal apparatus leads more quickly to disease.

In practically all cases of T. B. we have a history of repeated colds, poor health, anemia, and frequently many diseased conditions that can be referred to the nasopharyngeal or respiratory system. This history usually extends over a number of years. The similarity

of the histories will readily become apparent on a close analysis, and undoubtedly greater stress should be laid on the nasopharyngeal factors as very important agents in bringing about these pathological states. Too frequently we have mistakenly attempted to eradicate the disease with the body in the same state as when the disease was contracted.

The object of the prevention of tuberculosis and many other diseases should be the destruction or removal of the disease producing mechanism mentioned above, thus breaking the vicious circle that brings about that condition we call suboxidization.

There is one factor of vast importance (the common unhealthy practice of mouth breathing) to be constantly kept in mind in discussing the importance of the relationship of the nose and throat in the production of disease. The majority of patients with abnormal nose and throat are to a greater or less extent mouth breathers, although they may be unconscious of the act, during sleep they are naturally unconscious of it. Proper nasal breathing is an automatic act, which in a normal nose and throat takes place spontaneously. After a patient's nose and throat has been placed in a normal condition he will naturally breathe through his nose, but so long as his nasopharynz is abnormal he cannot breathe normally and will use his mouth for breathing purposes a large part of the time—a dangerous practice and one leading to a disease.

The Endocrines in Asthma and Hay Fever

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WHEN a sick man presents himself to you for your care you can ask, "What has he?" and can treat that "what"—which means that you will treat a "where," a certain locality; or, you can go deeper into it and ask "Why has he got it?" and then you can treat the "why" and also the "what" if occasion calls for it.

Sometimes there is no occasion to go into the "why" of a thing at all. If you are presented with a broken leg for instance there is no such occasion; the thing is final, the cause is immaterial, is no longer operative, is not a continuing factor in the condition. You do not except for record go into the "why."

Or if you find yourself faced with a cancer there is no occasion to go into the "why" simply because experience has shown the futility of it.

Or in hyperpyrexia you may not go into the "why" before you act, because the energy is the thing; the fever must be reduced and inquiry instituted afterwards.

And in a few other such cases one does not go into the "why" of a thing.

Sometimes on the other hand one can do as much harm as good by treating the "what" without knowing the "why"; as in stoppage

of the bowels, or many cardiac conditions. And sometimes one cannot in the least reach the "what" except through the "why," as in rheumatism and other conditions.

But on the whole and in the long run and as a broad general proposition to which none will I think take exception, the thing that cures or leads to cure is knowing what is the matter with the case—and that means both "what" and also "why."

Therapeutics began with the "what," and its history has been a very slow and very difficult advance into the "why"; and medicine still has not evolved to the point where it can be rid of that monkey's tail—it is still to too great an extent a topographical therapy. It defines an appendicitis and treats the locale, or a blepharitis and doses the margins of the eyelids. It is an attempt to fight disease back from the point of exit. Which is all right if it is all that can be done, and sometimes is really useful, as far as it goes.

In that long hard fight the discovery of bacteriology was an immense advance; and it was pushed as far as it could be made to go, and justifiably so, even if it sometimes went a bit too far. We learned to treat not alone the locale but the germ behind the locale.

The discovery of osteopathy was another such advance, more far-reaching than that of bacteriology. In some cases it defines the original point of entry, and treatment can be given as indicated all along the line. It too is being explored and expanded to its farthest possible limits; again with perfect justification; and so far with increasing returns on the effort—we have not yet found the limits to its applicability; have in fact apparently barely made a beginning.

The discovery of endocrinology is another such advance, easily comparable with the other two. It deals with locale, with processes, and also with constitutions; that is it covers points of entry, processes, and points of exit; and sometimes is found to be farther back in the line of cause and effect than the osteopathic factor itself. This also should be, and will be, explored to the farthest possible limits to see what it holds of illumination as to disease causation, and the body's reactions to such causes, and in providing methods for relief, care, substitution, or any other service that it may offer.

Cure rests upon either chance or else understanding. Our business is to eliminate that element of chance as much as possible. To do this all of the knowledge that is available is necessary, including that of endocrinology.

An osteopathic lesion is a continuing factor as long as it persists, and cannot be treated as we treat the violence that caused a broken bone.

An endocrine situation is also a continuing factor as long as it persists, and must be placed on the same footing. But with regard to endocrinology this further thing is true, that it often represents a constitutional factor, and so a continuing factor—and continuing not alone with reference to the disease that may be brought for treatment but with regard to all of the diseases that that person may have had or may in future have; and with regard to his general

problems of efficiency, physical and mental. The hold that an understanding of them gives to the physician is correspondingly broad.

* * *

Asthma and hay-fever are chronic conditions; that is to say they are constitutional conditions with acute crises. They are therefore most likely endocrine conditions, judging by that one fact alone. The osteopathic factor may be a continuing factor, of course, and so may be practically the "procuring cause" as the legal phrase goes; but some sort of a continuing factor is necessary to explain a continuing disorder. Of these the osteopathic factor is much the more incidental. Moreover, why does the same lesion produce such widely different results in different people? Some factor beside the lesion —some continuing factor—is necessary. This element endocrinology supplies.

Let me repeat, and clarify. It is possible that the osteopathic lesion may be the sole factor. It is possible that an endocrine situation may be the sole factor. It is possible that a local lesion may be the sole factor. But none of these is likely. As a rule nature does nothing for one reason alone, as a rule several factors enter, and not unusually all of them. Many cases are cured, and permanently cured by osteopathic measures alone; sometimes by single treatments alone. Some are cured by other means, and supposing all other factors equal, the choice is merely one of difficulty and cost; and I might add danger and collateral benefits and a few other things. But the true professional attitude includes a mastery of all these factors.

The relation between these factors is not difficult to portray. When a hammer strikes a bell, it is the bell that makes the noise, and it always makes a noise like a bell. The constitution furnishes the bell and the quality of its sound—which in this case is asthma or hay fever; endocrinology accounts for that constitution; the hammer is an osteopathic lesion; but anything else that strikes it hard enough will have the same result. Or if we can think of the bell as alive we can picture it making its own sound.

* * *

Asthma and hay fever are in effect the same disease in different localities. If the phenomena of asthma were transferred to the nasal mucosa we should have just the picture of hay fever. Says McPhedran (Osler's Modern Medicine): "Of the varieties of symptomatic asthma the most important is hay fever. It is often associated with typical bronchial asthma or may alternate with it. Many cases beginning as hay asthma gradually change into the ordinary form of asthma, which may in time replace it altogether." The common factor in this duality is the endocrine factor. This is the case with many diseases that are associated in groups, as in rheumatism and St. Vitus' Dance; (post pituitary) as with bronchitis and dermatoses; (adrenals) as with the exenthemata that are so prone to occur together; (whole endocrine mechanism especially thyroid), as with the wide variety of sequellae of the "flu" (adrenals).

What then is the endocrine factor that is back of asthma and hay fever?

In asthma it is known that the adrenals are factors in the disease. First there is the relief given by administration of epinephrin. Second, the logic of the relation is clear. To understand that logic we have to consider the adrenals as organs of combat (Cannon). Quite a chapter that discussion would take. Let it suffice to say that one of the valencies of this organ of combat is the dilatation of the bronchi to admit more air to the lung (as when one gets one's "second wind"). Every tissue of the body is affected by this enzyme in one way or another but in the lungs and bronchi it is in the direction of activating the respiration. Lacking this, or lacking it in sufficient quantity there come times when the inadequacy has results such as those seen in asthma.

Let us see how far we can go with this as clue.

To begin with the most obvious thing about asthmatics, there is the big barrel-shaped chest. Now if your scientific skepticism is working full time you might pause to wonder how this big barrel chest co-ordinates with the diminished adrenal valency, or with a functionally suppressed lung which it produces. Score one for you. It does not go with the adrenal deficiency at all. When there is a *plus* adrenal function that has persisted for long enough time we are apt to find the morphology varied in the direction of the big gladiatorial chest such as one sees in winter bathers—a different type of chest altogether. Insufficiency on the other hand is apt to lead to a diminished chest, as in the consumptive; at least the a-febrile adrenal type of tuberculosis pulmonalis. But there the big chest is. What about it?

Well, there is another type of big chest, that is the persistent thymus chest; wherein the individual preserves the morphology of childhood—high square chest, short legs, soft flesh and flabby joints, juvenile profile, and the nervous and mental qualities that go with it. Now look at that barrel chest again—it is not the athletic gladiatorial chest at all, but the high square thymic chest.

So where does that get us? As a matter of fact it gets us just where we want to be. The persistent thymus prevents the proper development of the adrenals, as it does also of the gonads and a few other things (in passing it causes a sympathetic enlargement of the ante-pituitary body, leaving it enlarged but not normal; which point we will recur to later). Now you will recall the success following the treatment of asthma by means of X-rays applied to the chest with a view to reducing the thymus. Remembering your asthmatic cases you may also recall the rather persistent cheerfulness or even playfulness of most of them, except of course during the attacks—a juvenile trait. Meanwhile, the persistent thymus with its load of phosphates and its touch of strychnine conduces to an excessively sensitive and easily overset nervous mechanism, with tendency to spasmophilia (as also in childhood), but here leading to the spasm of the bronchioles known as asthma.

And perhaps that association of asthma with persistent thymus explains the frequency of the osteopathic lesion at the fourth dorsal segment—the fourth dorsal being rather high for the adrenals but

just about right for the thymus. This is almost a specific lesion in osteopathic experience; which would tend to show that persistent thymus was rather more frequent than the morphology indicates or than science has suspected.

Not all asthma cases have the morphology of the persistent thymus. A good many are of the heavily pigmented slender adrenal type. An adrenal deficiency may be due to many causes beside persistent thymus. It may be hereditary; or it may be prenatal, due to some infection or other difficulty in the mother; during puerperium; or it may be due to exhausting infection, typhoid, tuberculosis, malaria; or it may be due to osteopathic injuries. It may be due to any infection or intoxication or to antitoxic injections. When the adrenal injury is primary there is lacking the thymic picture of course, and the adrenal picture predominates. But when deficient for any cause the pituitary effort at compensation is one of the likely results.

What are the valencies of the adrenals that leave their marks on the morphology?

We do not as a matter of fact ever see a complete picture of the deficiency or excess of any endocrine gland. That is because there are compensatory forces at work. These work first of all in the gland itself—some of its valencies may be brought up to par or nearer it than others. There is compensation on the part of other endocrine organs, which may mask the deficiency—as for instance the myasthenia of adrenal deficiency may be masked by pituitary compensation to the degree that there is a myotonia heavy enough to cause spinal curvatures. There is compensation in the nervous system making for correct regulation of function. There is compensation on the part of the tissues themselves, on the part of every living cell. This is one of the truisms of life, this is the thing that enables us to keep on and not go to pieces at the first onslaught of a force too great for the present strength of any single organ to withstand, as we surely would do if our functions were regulated by inflexible sets of rules. But we will see *some* of the evidences of those dystrophies, and in a series of a thousand cases we should see pretty much all of them.

First, there are the valencies in the bronchi, lungs and the whole respiratory tract and its nerve and blood mechanisms. The lung and chest will be relatively smaller and flatter, the respiration shallower except as affected by the efforts to offset the respiratory deficiency of the actual spasm. Then there is the association of true bronchitis with true asthma, so frequent that it has led to the definition of the disease as an asthmatic bronchitis. It is an association purely, and need not occur. Then there is the association of asthma with tuberculosis. Asthma is a very frequent event when tuberculosis has reached the fibrous stage, a sequel to tuberculosis; but tuberculosis also is a sequel to asthma in a sufficient number of cases to be called an association. It is not a consequence of the emphysema and atalectasis, but a nutritional deficiency traceable to the adrenals primarily. According to some authorities, when tuberculosis or pleurisy

or any other lung disease arises in an asthmatic subject, the asthma abates until the intercurrent condition is cured—as though they were antagonistic. There is another and I think a better explanation of this phenomenon. In all of the exenthemata there are different stages quite definitely demarked, which change into each other; one ceasing when the other comes on. Asthma represents a defensive reaction of the sensory-motor plane or stage. When conditions arise that bring on other and deeper stages of that defensive reaction, the earlier and lesser are naturally held in abeyance. There is antagonism in the stages, not in the association. Now in this connection the question arises whether the action of vaccines in such cases as pertussis may not be one of suspending the spasm by the simple process of carrying the pathologic reaction to the next deeper stage.

The respiratory function does not stop with the lungs but is continued into the blood. The adrenal valencies affect these, affect, that is, blood pressure, blood distribution, blood composition. The effect of adrenal deficiency on blood pressure is in the direction of low blood pressure; the effect on distribution is in the direction of insufficiency in skin, brain and muscles with engorgement of the splanchnic capillaries, together with all of the myriad consequences of these situations. The effect on blood composition is in the direction of quantitative anaemia, low erythrocyte count, low haemoglobin. This is modified by the splanchnic congestion and other factors and by compensation. But you will have noted the parchment skin, pale eyeballs, etc., of many asthmatics.

The respiratory function is continued into the heart—and of course the emergency and combat functions have much to do with it. The effect of adrenal deficiency there is in the direction of asthenia, myocarditis, possibly dilatation, low pressure, lack of stability, etc. Pituitary compensation may reverse the picture in some respects, but in doing so is apt to have collateral effects, as hypertension of the sluggish fairly constant type, comparable to the hypertension of the voluntary muscles leading to spinal curvature and other deformities; or as the so-called French Poodle heart, which skips all over the lot with the most intractable arrhythmia, without seeming to cramp the style of the owner very much. These hearts sometimes scare you when you first listen to them; but they are comparatively harmless. They occur frequently in asthmatics as also in connection with epilepsy and epileptoid conditions; and are to be regarded simply as another branch of the same tree.

Superficial aspects of adrenal morphology are to be seen in chest, in pigmentation (red or black hair and skins to match) in the canine teeth and general sharpness of all teeth, in the size of the abdomen.

There is another type of morphology, the gonadal, that is seen in hay fever subjects. I am sorry that space forbids extended comment on all of these different types. The relation of the gonads to hay fever is seen in the facts noted, the onset at puberty, or toward the beginning of menopause, or following confinements or occurring only during puerperium, or the abatement after menopause; and in the

fact that twice as many men are affected as women. The relation of the gonads to the pituitary body is well enough known; the enlargement of the ante-pituitary during pregnancy and the virtual suppresion of the posterior pituitary during that term (from which arise many symptoms of pregnancy, as nausea, idiosynerasies in diet, fainting, etc.), and this fact in women the post-pituitary to relatively larger and functionally more stable.

This brings us to a discussion of the posterior pituitary body in hay fever and asthma. From the last preceding paragraph it is evident that the condition of the pituitary that leads to these diseases is the functional suppression or the relative inadequacy of the posterior pituitary body; which when subect to functional strain reacts in the way to produce the sensory motor and congestive phenomena of hay fever and asthma. To complete the picture there should be a discussion of this defensive process, its phases and the logic of them. That, too, space forbids.

From all of the organs that we have discussed strain is brought to bear on this organ. From some of them there is also an effect on the local tissues of the bronchi and respiratory tract generally, as from the adrenals. From some of them there is also an effect on the pituitary body of a disturbing nature aside from the compensatory action; as with the thymus and the gonads.

From the pituitary body so affected there is an overflow of irritation that reaches first the naso-pharyngeal mucosa and environs generally for this reason: that the biologic origin of the anterior portion of that organ was from these tissues, where there are still found remnants of the same kind of tissue, as the tonsil, and with which it is still connected in many ways. This connection and other such connections as this are evident in the symptomatology of many conditions, and also in osteopathic experience with pathogenesis from osteopathic lesions; and they are important factors in the general study of morphology. They also supply routes for therapy—for if the horse is tied to the cart, the cart is also tied to the horse. You are no doubt familiar with the various forms of therapy for hay fever and asthma that are applied to the naso-pharynx and particularly the posterior nares. It is through this relation and this route that they are effective.

This overflow from pituitary strain is effective second through the vagus nerve through which many or perhaps most of the symptoms are produced, notably the asthmatic attack itself, but also the symptoms in heart and digestive tract; and in the ear, gums, teeth, etc.

From the pituitary body itself many symptoms arise; as the frontal headache, often referred to some point deep in the skull, no doubt the organ itself; the abnormal sensations of heat in various parts of the body, the tingling and itching also diffused, and the urticaria-like eruption. These are to be considered in connection with the central canal of the spinal column, of which the posterior pituitary body is the cephalic expansion, and its known functions. In this connection may be considered also the known relation of asthma and

hay fever to migraine, epilepsy and gout; the prodromes, the hereditary factor, the psychic causes, etc.

The pituitary also has a morphology of its own. It sends out these enzymes, which are nutrient; and when in excess or when deficient they affect the form of the body as well as its functions; in degrees according to the degree of excess or deficiency and in proportion to the length of time through which they act. Their value in these diseases would be in enabling us to estimate how much of the pituitary situation was primary with the pituitary and how much was reflected to it. But they are incriminated in any case by the bare fact of the disease, and we are forced to pass it over.

What then is the value of this information? It enables us to see more deeply into our case. There is no question as to the value of added knowledge—it is worth while whether it leads to better therapy in the single case or not. But it does enable us to approach our case from the functional as well as the structural standpoint, and it broadens the approach from the structural standpoint. Dr. M. M. Brill specializing in ear, nose and throat, finds that it is worth while giving attention to the adrenal centres in his cases, as well as to the more direct centres.

As I am writing these pages there comes into my office a case that illustrates many of these points—not a hay fever case, he will probably never have hay fever nor asthma, for reasons that will be obvious. He has, however, sinusitis and rhinitis among other things. As soon as he tells his story—which includes osteopathic treatment for many months—I immediately look at his teeth. There I find that the two lower central incisors have never erupted, and he is doing business as well as he can with the milk teeth—at the age of forty plus; I find also that the two upper incisors are unduly large; and that the canines are small and blunt. The morphology of these three things alone indicates that he has a constitutional deficiency of the adrenals, a negligible ante-pituitary and a very much enlarged posterior pituitary body. The rationale of this is quite simple, as far as we can go—we cannot go into the whole of it. The upper jaw belongs with the posterior portion of the body, the lower (which is the modified first rib) with the ventral or anterior part; hence the ante-pituitary; while the canines are part of the fighting equipment, so related with the adrenals. A bit fanciful you may think—but it works out. And working out it impresses us with the fact that the living body is a thing of the most far-reaching rationality, in fact, I should say that the life thereof was the reasons thereof; and that its diseases were disturbances of this rationale beyond its powers of spontaneous self-regulation.

In any case, I went next to the adrenal centres at the eleventh dorsal, and asked if they were tender. No, he replied, but he often had backache there. An osteopathic disturbance of considerable degree was found there, and corrected. Then going on down a lesion at the second lumbar was also found, related with the gonads or the spleen, which also I corrected without comment. The usual lesions and contractures were found around the occiput and upper cervi-

cals. These lower lesions I regard as definitely related to the case, through the endocrine system, possibly overlocked by his osteopathic physician because there seemed no occasion to look for them. Osteopathic therapy is broadened by the endocrine diagnosis.

Now this patient was leaving the next day for England, and stated that sea voyages always made him worse. So in this case I felt justified in recommending endocrine medication in view of the emergency, without waiting for a thorough try-out of the broadened osteopathic approach. The medication I recommended was parathyroid, explaining that it was only in view of the sea voyage, and only as a drug.

Which brings me to another aspect of this matter. Osteopathy is not like the case of a man who refuses to ride in automobiles because he "believes" in horses, or on horses because he happens to be a salesman for automobiles. Its province is unlimited. It deals with whatever is wrong with the patient, in whatever way can be successfully used either for his cure or for his relief, or even for his comfort, where good judgment seems to call for it. Our objection to medicine is not a partisan matter, nor a trade rivalry, nor a blind prejudice, but is simply because they are not logical, because their influence is not curative, and because they are backed up by a "belief" which is incompatible with logic and antagonistic to other approaches to the subject—a belief that operates to limit the mental liberty of those trained in it, and confines them to blind alleys.

But Osteopathy must not find itself in similar case on the other side of the fence. Its field is the whole field of diagnosis and of therapeutics, guided by its broader grasp of etiologic factors and its clear and invincible logic. There are two things that endocrinology brings him, aside from the broadening of the application of his osteopathic work, the one great and fundamental, the other small and incidental but nevertheless real. The first is the physiologic approach, for which endocrinology, being one of and often the chief physiologic factor, is necessary. The second is endocrine substitution, endocrine stimulation, where curative measures have obviously failed, and endocrine physiologic manipulation.

Now there is one other factor in the causation of asthma and hay fever that is osteopathic in nature and operates through the endocrine system among other things, that has not so far as I know been given due consideration. I refer to the narrowing of the palatal arch,—a thing that has been going on ever since man left the trees, but which with the coming of civilization with its soft foods has been going on at an accelerated rate. The jaws are elastic to resist the pressure of chewing. Lacking this pressure they warp themselves by this very factor of elasticity. So warping, they push up on the centre of the palatal arch, causing the deviated septums that are so common, drawn down on the maxillary bones, and otherwise distort the whole system of the facial bones. One of the effects of this strain is reflected to the pituitary body, as shown. The therapy for this is of course exercises that will broaden, or in more mature persons aid in normalizing those structures.

So the most hopeful message that endocrinology brings to the hay-fever and asthmatic sufferers is the broadening of the field of application of osteopathic corrective measures.

The second most hopeful message has to do with the warping of the palatal arch.

The third most hopeful message is the physiologic approach, physiologic re-education, and of course physiologic protection.

But the fourth message, that of endocrine substitution—with the distant hope of endocrine reconstruction—and of endocrine manipulation is not to be ignored; in fact in all humanity it sometimes cannot be omitted.

Hotel Woodward, New York.

Case Analysis

Dr. X has had hay fever every August and September, which months he spends in the Alps or Bermuda or some such place. A lawyer with excellent connections, he has had the best of medical advice for many years, including pluriglandular therapy, without material benefit.

He has also osteitis, a vacuole having been discovered in the humerus twenty-five years ago, but antedating that time necessarily, taking us back to before the age of 31. With this is some acute degenerative osteoarthrosis, and the pains associated with that, lumbago, sacro-iliac pains, etc. There are diffuse migratory pains that may or may not be secondary to the osteitis, and a rather consistent headache especially following speaking, located at the back of the neck and over the occiput.

Heavy scars are discovered at the back of the neck, the records of old carbuncles, of which he had ten at one time at the age of 45, preceded by a history of boils for many years. At 48 there was a middle ear abscess. There is also low blood pressure, bronchitis, measles at 7 and again at 25, scarlet fever at 10. As a boy he often noted "stars" in the visual field, and was subject to trembling of the knees during games, evidently a visitation severe enough to be remembered after forty-five years.

The first point of interest in this case is the degenerative osteitis, and immediately one thinks of the parathyroid gland. Following that clue, inquiry discloses what may have been an exhaustion of the gonads, whose functions ceased at forty; but one wonders whether they were not insufficient in any case.

The boils and carbuncles may be attributed to a low parathyroid function, but may have other explanation; as excessive blood sugar, traceable to the adreno-pancreatic equilibrium. With this is to be taken the low blood pressure, bronchitis, the "stars" in the visual fields and the abnormal tremblings of the knees; taking us back to childhood for the origin of the adrenal weakness.

There is suggestion of an insufficient parathyroid, insufficient adrenal, insufficient gonadal functions. Back of all of these might lie the single root, a slightly persistent thymus.

Examining the morphology for its evidence, we find first of all the "gonadal" teeth, the upper lateral incisors, to carry marks of an

abnormality there. We find the lower teeth crowded together (ante-pituitary plus) and the upper incisors spaced (post-pituitary plus) also.

We find next a torso full and high, distinctly a thymic type, with hands to match; not a full picture; obscured no doubt by the morphology of other glands, but quite possibly meaning only a slight persistence; enough to disturb but not to suppress the adrenals and gonads, to cause a slight increase but also slight abnormality of the lymphoid (ante) pituitary body. Other features of the morphology carry out these indications.

On this basis, the parathyroid picture becomes interpretable. The parathyroid is the normal successor to the thymus, held back along with adrenals and gonads by its persistence. Its functional relation with the gonads is an inverse one, excessive ovarion function leading to exhaustion; and similarly no doubt for excessive testicular function. A history of gonadal exhaustion was indicated in this case. Between thymus and parathyroid and gonads, the bones were left with insufficient calcium.

The headaches at the back of the neck are also interpretable. In almost every case of ovarian dysfunction there is to be found a strap of contracture between the second and third cervicals, most often including muscles from third cervical to occiput or larger masses, confined to the left side. This is true of testicular dystrophies also, less conspicuous merely because these are less often encountered and probably less severe. Also, in hypotension there is headache referrable to this general area, due to reflected strain on some nerve centres in this part of the cord or in the basal ganglia, trying to make compensation for the hypotension. The relative frequency of boils, carbuncles, etc., in this part of the body cannot be without significance, and its significance probably has reference to the nerve centres for some endocrine function in this area. That these centres are in or closely related to the pituitary body is indicated by its known relation to glycogenesis, to blood pressure, to gonadal function, to the thymus, and according to our hypothesis, to hay fever.

The hay fever is also explicable on the basis of this endocrine picture, in which the pituitary is affected first by the thymus, second by the adrenals, third by the gonads, and quite possibly also to the parathyroids, although the lines of such relation are not clearly defined.

Parathyroid, both as specifically indicated and also as a drug, was used in this case in conjunction with osteopathic work. Within two months quite definite progress was noted, in all aspects but the hay fever. The patient declines to put that to the test, which is not due in any case until August.

* * *

The data presented in this case are incomplete. The data are never complete, of course, nor is the interpretation of them. For instance, the little matter of pain on movement led to a decidedly sedentary life which contributed much to the burden of toxines and

inactive circulation, etc. The malnutrition of the bones plus lack of muscular exercise plus the adrenal and gonadal insufficiency led to an anaemia which also had its repercussion through almost every feature of the case. The sub-alkalinity meant a superacidity, to which other factors contributed, which also had its repercussions through the other features. And so on. It is merely a question of how far one has to go to reach a correct therapy, or wishes to go for scientific purposes.

The point that I wish to make is that the common denominator of most of the data in this case is the endocrine mechanism. In general the unifying element of symptomatology and of case histories is the endocrine element, with reference to which most cases may be seen as a logically consistent whole; or which at least brings us very much nearer that goal. The endocrine mechanism is the deep biological regulator, and is the agent of the greater part of the body's defense reactions. As such it should be the chief avenue of therapy, whether osteopathic, medical, re-educational, psychic, or experimental.

A headache may be the sign that either your eyes or your judgment are bad.

They're bringing out a four-wheel drive car, but nothing will ever wholly take the place of the back seat drive.

Dark circles under the eyes may indicate you're running around too much after dark.

The man who shakes hands with the most enthusiasm will probably pull your leg the same way.

The hypocrite can have his face wreathed in smiles and be in an ugly frame of mind.

Love is what makes the world go round and keeps the rest of us running in circles.

Evidently the girls are determined that if skirts have to be made longer it will be in such a way that the silk stocking won't be a total loss and there still will be some excuse for buying those dainty pink things that are not supposed to show, but which often do.

A California mayonnaise manufacturer's wife wore a dress of the vintage of 1917 into divorce court the other day, and offhand that does look like rather old dressing.

Chicago uses 27 carloads of garlic annually, according to excellent authority, and now we will have to revise our opinion of the stockyards, which up to this time have been blamed for it all.

Convention Announcement

An unusual opportunity will be offered for Osteopaths in the form of the convention of the Society of Osteopathic Ophthalmology. Rhinology, and Otolaryngology, which will be held in Philadelphia the week of June 30th, 1930.

The particular advantage will be the possibility of holding the sessions, and having the headquarters at the magnificent new $1,500,000.00 Osteopathic Hospital and College, located at 48th and Spruce Streets, Philadelphia. Dedication of this new edifice took place Saturday, February 8th; the first operations were performed in the perfectly equipped, up-to-the-minute operating rooms, on Sunday, February 9th. This hospital has a total of 69 beds for adults, and 21 beds for children, and has the most modern equipment throughout. While not as large as some of the great medical hospitals of Philadelphia, it is the city's newest hospital, and will compare most favorably with any medical institution. It stands as a credit to Osteopathy. Delegates to the convention will take a justifiable pride in this institution, and it is believed that much will be gained in this convention by having the interests of the delegates centered here, rather than at a hotel.

Another great advantage in the Philadelphia convention lies in the city itself. Philadelphia is probably the most noted hospital center in the world. Some of the most famous institutions for the healing of disease to be found anywhere will be subject to the inspection of those who come to this convention. Furthermore, many will enjoy Philadelphia for its unsurpassed historical interest, its art, and its many places of sight-seeing interest, such as: Independence Hall, Valley Forge, Fairmount Park, Wanamaker's Store, League Island Naval Station (the largest in the United States), and others too numerous to mention.

One thing which should be of special interest to the hard working Osteopaths will be the sitxy golf courses about Philadelphia. Arrangements will be made so that opportunity will be given for golf and other means of relaxation each afternoon, in addition to the golf tournament which is being arranged by Dr. Lamb and Dr. Galbreath.

Almost it may be said of Philadelphia: "Whatever any other city can offer, Philadelphia can."

A list of hotels and their rates will be found in this issue. Reservations should be made early.

The convention banquet, and possibly one other evening meeting, will be held at the fine modern Hotel Pennsylvania, which is within easy reach of the Hospital and College. This hotel is located at 39th and Chestnut Streets, and is the nearest to our institution, being reached by taxi in five minutes, or by a ten minute walk. Downtown hotels may be reached by taxi, bus or trolley car in within fifteen minutes to one half hour from the Hospital and College.

Your local committee is endeavoring to leave nothing undone in an effort to make this the most enjoyable, and at the same time the most helpful convention of its kind yet held.

Dr. C. Paul Snyder,
Convention City Executive Chairman.

American Osteopathic Society of Ophthalmology and Otolaryngology

Convention at Philadelphia July 1st to 5th, 1930

GENERAL ARRANGEMENTS COMMITTEE

Dr. C. Paul Snyder, General Chairman

SUB-COMMITTEES

Hospital and Clinics—Dr. Wm. Otis Galbreath, 414 Land Title Bldg., Philadelphia.

Properties, Exhibits—Dr. Ernest Leuzinger, 4937 North Mervine St., Philadelphia.

Public Welfare Meeting—Dr. John Bailey, 1623 Spruce St., Philadelphia; Dr. Geo. Hales, 511 E. Allegheny Ave., Philadelphia.

Sergeant-at-Arms (tentative)—Dr. Geo. Tinges, 5241 Baltimore Ave., Philadelphia.

Registration (Doctors)—Dr. A. G. Walmsley (sub-chairman), 621 W. Broad St., Bethlehem, Pa.

(Patients)—Dr. Ernest Johnson, Bank of Phila. and Trust Co. Bldg., 3701 N. Broad St., Phila. Dr. J. L. Hanson, 807 E. Allegheny Ave., Philadelphia.

Badges for Doctors and Guests—Dr. Jas. W. Day, 48th and Locust Sts., Philadelphia.

Golf—Dr. Galbreath, Dr. Snyder.

Local Banquet Comm. (under Dr. Snyder)—Dr. Ernest Johnson, Dr. Jas. W. Day.

Additional members of Comm.—Dr. Jerome M. Watters, 23 James St., Newark, N. J.; Dr. Thos. Thorburn, 101 West 57th St., New York City.

O. & L. of A. O. S. Convention, Hotel Pennsylvania, Philadelphia July 1, 2, 3, 4 and 5, 1930

Hotel Reservations for the National Convention

At the present writing the aid of the following hotels has been enlisted to care for the osteopathic physicians attending the National Convention in Philadelphia in July, 1930.

Bellevue-Stratford (Convention Headquarters). Single rooms $4.00 per day, European plan. Double rooms $7.00 per day, European plan.

Ritz Carlton, Broad and Walnut Sts. (Across street from the Bellevue Stratford.) Single rooms $5.00 per day. Double rooms $8.00 per day.

Benjamin Franklin, 9th and Chestnut Sts. 1,200 rooms. Rooms and bath $4.00, $4.50, $5.00, $6.00, $7.00 per day. Room and bath (double beds) $6.00, $7.00, $8.00, $9.00, $10.00 per day. Living room, bedroom and bath (for one or two) $12.00, $14.00, $15.00.

Pennsylvania, 39th and Chestnut Sts. 600 rooms. 12 blocks to College and Hospital. Single room and bath $3.00, $3.50, $4.00,

$5.00 per day. Double room and bath $5.00, $6.00, $7.00, $8.00 per day. Suites, 2-3 persons $8.00 to $10.00 per day. Suites, 3-5 persons $8.00 to $12.00 per day. Bath with each.

Hotel Sylvania, Locust and Juniper Sts. Single rooms, each with private bath $3.50, $4.00, $5.00 per person. Double rooms, twin beds and private bath $6.00, $7.00, $8.00, two persons.

Robert Morris Hotel, 17th and Arch on the Parkway. Room and bath, one person—$3.00, $3.50, $4.00. Rooms and bath, two persons—$5.00, $6.00.

Hotel Adelphia, 13th and Chestnut Sts. 400 guest rooms. Single room—$4.00, $4.50, $5.00, $6.00, each with bath. Double rooms, double bed—$6.00, $6.50, $7.00, $8.00. Double rooms, twin beds—$7.00, $8.00, $9.00, $10.00. Parlor suite—$12.00, $15.00 per day.

St. James Hotel, Walnut and 13th Sts. 1 block to Convention Headquarters. Double room and bath, twin beds—$5.00, $6.00, $7.00 per day. Double room and bath, twin beds—$6.00, $7.00 per day. Single room and bath—$3.00, $3.50, $4.00 per day.

Hotel reservations are now being made by the Committee! Please advise us now and avoid the last minute rush. When writing for reservations, kindly send the following information:

1. When will you arrive in Philadelphia?
2. How much do you wish to pay for accommodations?
3. What kind of accommodations do you wish?
4. What hotel do you prefer?
5. Send reservations to Dr. C. Paul Snyder, 1721 Walnut St., Philadelphia, or directly to hotel preferred.

Notice

AMERICAN OSTEOPATHIC BOARD OF OTOLARYNGOLOGY

Dr. C. C. Reid, President
Dr. T. J. Ruddy, Vice President.
Dr. J. D. Edwards, Secretary Treasurer.
Dr. J. Deason, Honorary Member.
Dr. L. S. Larimore
Dr. H. J. Marshall
Dr. A. C. Hardy

You will find the members of the American Osteopathic Board of Otolaryngology printed above. A couple of applications for action of the Board have already been received. Inquiries are coming in as to when and how the Board will function.

Notice is hereby given that the American Osteopathic Board of Otolaryngology will have an official meeting for examination of candidates for a certificate of merit from this Board the first week of July at the Philadelphia Osteopathic College.

The exact date and place will be published later. Those who desire to have such a certificate should send their application with twenty-five dollars ($25.00) to the secretary, Dr. J. D. Edwards, Chemical Bldg., St. Louis, Mo. Dr. Edwards will furnish proper blanks which he will have on hand soon, for proper official registration.

(Signed) C. C. Reid, D.O., M.D.
President of A. O. B. O.

Report of Program Committee

DR. C. C. REID, *Chairman*

In view of what we have received in a way of report and preferences from local committees in Philadelphia and the Board of Trustees of the O. & O. L. Society, it seems to be more satisfactory to begin our clinic program on Tuesday, July 1, instead of on Monday, June 30, as contemplated before. With this plan we go right through, the fourth of July not to be a holiday, except for a little program of a patriotic nature in observance of the occasion, to be put on by the Society.

Everyone please take note, there is no program on Monday, June 30. Tuesday, July 1, is regular clinic day. Examination of clinics will last all day. Those who will be examining in the rooms on Tuesday morning will be as follows:

TUESDAY MORNING 8:00 TO 12:00

Room No. 1	Dr. Chas. M. LaRue. Alternate Dr. E. C. Brann. Assistant Dr. M. M. Brill.
Room No. 2	Dr. C. C. Reid. Alternate Dr. C. B. Ewing. Assistant Dr. P. F. Kani.
Room No. 3	Dr. J. D. Edwards. Alternate Dr. W. V. Goodfellow. Assistant Dr. F. J. Cohen.
Room No. 4	Dr. T. J. Ruddy. Alternate Dr. H. A. Marshall. Assistant
Room No. 5	Dr. J. M. Watters. Alternate Dr. Thos. Thorburn. Assistant
Room No. 6	Case Histories—Dr. W. O. Medaris, Dr. J. H. Bailey, Dr. L. S. Larimore, Dr. C. Paul Snyder, Dr. N. J. Neilson, Dr. L. M. Bell, Dr. H. R. Holloway, Dr. L. M. Bush.

The afternoon clinics are as follows:

Room No. 1	Dr. L. S. Larimore. Alternate Dr. Chas. M. LaRue. Assistant Dr. Y. Castilio.
Room No. 2	Dr. C. B. Ewing. Alternate Dr. C. C. Reid. Assistant Dr. P. F. Kani.
Room No. 3	Dr. A. C. Hardy. Alternate Dr. N. J. Neilson. Assistant Dr. L. M. Bell.
Room No. 4	Dr. W. Otis Galbreath. Alternate Dr. J. D. Edwards. Assistant
Room No. 5	Dr. W. F. Goodfellow. Alternate Dr. Thos. Thorburn. Assistant Dr. M. M. Brill.
Room No. 6	Case Histories—Dr. W. O. Medaris, Dr. Eva W. Magoon, Dr. J. M. Watters, Dr. E. C. Brann, Dr. F. J. Cohen, Dr. Arthur Campbell.

Wednesday, July 2, a tentative outline is as follows: In the various rooms will be examination of clinics from 8:00 to 9:30 A. M. by Dr. L. M. Bush, Dr. Thos. Thorburn, Dr. J. M. Watters, Dr. C. B. Ewing, Dr. A. C. Hardy. 8:00 to 9:30 also will be operations at the hospital.

It is essential that the operations and examinations terminate promptly at 9:30. The Instruction Conferences will begin at 10:00 A. M. promptly and will last until 12:00.

One dollar ($1.00) fee will be charged for each conference attended. Conferences will be held Wednesday morning, 10:00 to 12:00 by Dr. L. S. Larimore on "Mastoiditis," Dr. Henry W. Harrower, (special dispensation) on "Endocrinology," Dr. T. J. Ruddy, "Diseases of the Eye," Dr. J. D. Edwards, "Deafness," and Dr. C. C. Reid, "Hay Rever and Allied Asthma," "Bates System," Dr. J. M. Watters.

The afternoon program on Wednesday:

"Sinusitis and Asthma—Their Relation and Treatment," Dr. L. M. Bush.

"Has Osteopathic Finger Surgery Been Successful in Treatment of Deafness," Dr. George W. Goode.

"Treatment of Eye Diseases Osteopathically," Dr. Frank P. Dobbins.

"Electrocoagulation of Tonsils," Dr. N. J. Neilson.

Others on the program will be Dr. John H. Bailey, Dr. John Leo Hanson, Dr. P. F. Kani, Dr. Thos. Thorburn, Dr. E. H. Frech, and Dr. C. M. LaRue.

The evening will be devoted to an Open Forum. Dr. J. M. Watters is chairman of the evening. There will be discussions on such subjects as Trachoma and Glaucoma and other eye diseases. Also Nasal Sinuses, Different Phases of Deafness and various questions brought up for discussion.

Thursday, July 3, there will be a continuation of examination of clinics, operations, and Instruction Conferences. The Conferences on Thursday will be held by the following doctors. Dr. W. V. Goodfellow, "Nasal Accessory Sinuses," Dr. A. C. Hardy, "Treatment of Rhinological Conditions," Dr. Harry J. Marshall, "Infectious Diseases of the Throat," Dr. Wm. Otis Galbreath, subject to be announced, Dr. C. Paul Snyder, "Functional Hearing Tests." After noon, there will be a business session.

The afternoon program will be about as follows: "Disease Prevention of the Nasal Mucosa," Dr. F. J. Cohen, "Diet in Diseases of the Eye, Ear, Nose and Throat," Dr. Mary W. Walker, "Endocrines and the Eye, Ear, Nose and Throat," Dr. Ernest E. Tucker, "Tubercular Mastoids," Dr. E. C. Brann.

In the evening, there will be a public welfare meeting held at the College auditorium. Dr. John H. Bailey is in charge. For the fourth of July, operations, and clinical examinations will be continued. Instruction Conferences are yet to be set up. In the afternoon, July 4, there will be a symposium on Deafness. The following doctors have been selected to speak on some phase of this subject: Dr. Chas. M. LaRue, Dr. L. S. Larimore, Dr. A. C. Hardy, Dr. W. C. Brigham, Dr. L. M. Bush, Dr. W. V. Goodfellow, Dr. L. C. Chandler, Dr. W. O. Galbreath, Dr. C. Paul Snyder, Dr. H. J. Marshall, and Dr. J. D. Edwards.

As the program comes out, if we have the public welfare meeting

and the Open Forum on Wednesday and Thursday evenings, the banquet will be held the evening of the fourth of July. At this we may observe patriotic day by some talks as a part of the subject or some flag day exercise.

Saturday, July 5, operations and examinations as usual, 8:00 to 9:30. Instruction Conferences to be announced. The afternoon program about as follows: "Non-surgical Treatment of the Tonsils," Dr. M. M. Brill, "Nasal Pathology, Surgical and non-surgical," Dr. Jerome Moore Watters, "Agranulocytic Angina," Dr. H. M. Ireland, "The College Curriculum and Eye, Ear, Nose and Throat Work," Dr. Edgar O. Holden, and "Super Will Deep Breathing as a Lymphatic Pump in Eye, Ear, Nose and Throat Diseases," Dr. J. H. Baughman.

Meeting of the Board of Trustees.

THE LOCATION

She: "Did I ever show you the place where I hurt my hip?"
He: "No-no."
She: "All right, we'll drive over there."

A wise wife is one who pretends to believe everything her husband tells her.

Little Boy Blue, come blow your nose.
It's running all over your Sunday clothes.
Where is the hankie I gave you, my lad?
Deep in your pocket, still folded, b'gad!

If it is something we don't care much about one way or another, we are always willing to concede the other fellow may be right.

ANSWERED

Professor: "Can you give me an example of a commercial appliance used in ancient times?"

Student: "Yes, sir, the loose leaf system used in the Garden of Eden."

We know a fellow who is so dumb he went into a chain store to look for the missing link.

EXPERIENCED

She: "Now what are you stopping for?"
He (as car comes to halt): "I've lost my bearings."
She: "Well, at least you are original. Most fellows run out of gas."

SHORT AND SWEET

At first the world was flat. Then some one discovered that it was round. Now it is crooked.

Etiology and Conservative Treatment of Acute Maxillary Sinus

H. R. Holloway, D.O., *Battle Creek, Mich.*

WHEN Dr. C. C. Reid, Chairman of the Program Committee, asked me to appear on the program this year and to choose my own subject, I decided to speak on the subject of "Etiology and Conservative Treatment of Acute Maxillary Sinus," because, in the section of the country, in which I am practicing, this infection is very prevalent and I have had very gratifying results from my treatment.

First, considering the etiology of an acute maxillary sinus (this will apply to all the nasal accessory sinuses) we have the exciting causes and the predisposing causes. Under the exciting causes we have bacteria, traumatic and chemical destruction of tissue cells. The bacteria lies dormant in the tissues at all times, and the moment the cells of this tissue are lowered in resistance by traumatic or chemical changes. Then there immediately is an infection of the mucous membrane, the severity of which depends on the virulence of the organisms, and the resistance of the individual.

Predisposing causes: The predisposing causes may be divided into extra-nasal and intra-nasal. The extra-nasal causes are:

1. Age—most commonly found in children and young adults, because they do not care for themselves properly; they expose themselves to all kinds of weather and conditions without the proper clothing and the proper after care.
2. Sex—most common in the male, because men are exposed more to climatic conditions than women.
3. Climate—regions where there is much cold, damp weather, with sudden changes of temperature. This shock to the body acts on the vaso-motor nervous system which in turn causes a lowered resistance to the nasal mucous membrane.
4. Exposure—Unusual and unequal exposure of the body to cold, damp weather; exposure of the feet to cold and damp; draughts striking a single part of the body.
5. Lack of humidity and ventilation in heated houses in the cold and damp seasons are factors.
6. Clothing—this is a big factor in lowering resistance of the nasal mucous membrane. Most people do not know how to dress properly. It does not matter much the amount of clothing one wears, but what he wears. If one wears an undergarment that will absorb the perspiration, such as silk or linen, then if he feels as if he does not have on enough he may put on cotton or wool over them. However, be sure to have a good absorbent next to the skin to protect the body from sudden changes of temperature.
7. Digestive tract when not properly functioning will send noxious material to the vascular circulation and will put stress on the migratory cells of the body which, in turn, will lower the resistance of the nasal mucous membrane.

8. Some constitutional diseases such as diabetis, syphilis and faulty metabolism affect the nasal mucous membrane.
9. Now we come to the teeth which are in very close relationship to the maxillary sinus. The second bicuspid and the first and second molars are very close to the floor of the sinus and at times extend into the cavity covered only with the mucous membrane of the cavity. A suppurative process around the roots of either of these teeth may easily affect the mucous lining of the sinus to the lymphatic and blood stream. An infection of a crown of a tooth may also affect the sinus in the same way. In fact, I am always suspicious of a crowned tooth.

The intra-nasal causes: Now please bear in mind that cavities lined with mucous membrane are predisposed to inflammation when their drainage and ventilation are obstructed. Therefore, obstructions to the lower part of the nose (the septum and inferior turbinate) can be eliminated to a certain extent in that they do not interfere with drainage or ventilation; but they do have a tendency to cause turgescence of the nasal mucous membrane which in time will cause a hypertrophy of the lining. This, then, will interfere with the drainage of the sinus and also with the ventilation. Obstructions to the anterior part of the nose are usually caused from trauma and do not interfere so much with drainage but they do interfere with the ventilation of the cavities of the nose, in that the deformity will change the current of inspired air and does not give the proper ventilation, which predisposes to inflammation. Obstructions of the middle turbinate, such as deviations of the septum, hypertrophied turbinates, hyperplastic rhinitis and nasal tumors that extend from the sphenoid and ethmoid cells will interefere both with the drainage and ventilation of the maxillary sinus.

Treatment: As I stated in the beginning, the factors I have mentioned are etiological to any nasal accessory sinus infection, not to the maxillary sinus alone; but I chose the maxillary sinus because I have had very good results with its treatment. The treatment I am going to outline is of a conservative nature for an acute maxillary sinus. A patient comes to my office, complaining of a sinus infection. After I have examined him to determine the sinus involved and the cause, the first thing I do and the thing the patient is anxious to have me do, is to relieve the pain. I spray the membrane of the nose with a 1% solution of ephedrine inhalant or put in a pledget of cotton saturated with this solution. Next, I put the patient under the infra-red light for twenty minutes and follow this with straight Osteopathic treatment, relaxing the upper dorsal tissue, working well over the shoulder and clavicle, correcting any lesions found; then I relax the anterior and posterior tissues of the neck, correcting any lesions there. I now use deep pressure over the nasal bones, just below the inner canthus of the eye and apply the lymphatic pump below the clavicle. Next I remove the pledgets of cotton from the nose and use the aspirator to start drainage. After this I use a cotton wound applicator saturated with 3% solution of ephedrine hydro chloride and place the applicator between the middle turbinate and the anth-antrul wall and allow it to remain in place for

about three minutes. Drainage will generally start in from one to four hours. After this treatment, I instruct the patient to spray the nose with a 1% solution of ephedrine inhalant as often as necessary to keep the membrane of the nose contracted; also to inhale the fumes of compound tincture of benzoine (one teaspoonful to one quart of boiling water) from one to three minutes, every four or five hours when awake. I then instruct the patient as to his general care, diet, rest, elimination, etc. Treat the patient every day, Osteopathically, until the infection is well under control; then two or three times per week. Most of my cases have responded very nicely to the above treatment in from one week to ten days.

In conclusion, I will say I have had very good results from the treatment outlined to you, and would like to hear from any one who has anything else to offer along this line that will give quicker and better results.

The New Theory of Pathological Currents

N. J. Neilson, *Toronto Canada*

ONE of the significant things of this age is that we are willing to give, if not a sympathetic, at least a tolerant hearing to new ideas. Osteopathy thus has been able to make strides which probably it could never have done this side of the age of Pericles.

While medicine lived a thousand years on the dictates of Hippocrates, a leader now is fortunate if his work is able to stand for a thousand days, without modification. New ideas and new observations are evolving so rapidly in all fields of scientific research that about the only thing we can be certain of is that what we knew before we don't. This statement, of course, will be challenged by many, but I think you will understand what I mean.

In the realm of Physics especially, what formerly was solid and definite and certain—atoms and elements and so forth—has now evolved into electrons and protons and waves of uncertainty regarding the reality of things.

I do not know how many of you are familiar with the new theory of pathological currents, but it has enough to do with the ear, nose and throat that in the interests of research I feel it ought to be brought to your attention.

In the case of focal infections we assume that the toxins given off from either the live or dead bacteria, or even the bacteria themselves, are absorbed into the blood stream, carried through the body, and cause trouble in remote parts from the source. Where this source is sufficiently permanent, a general fibrosis throughout the body appears to develop, localizing more definitely in certain areas where the resistance at that point is low—from whatever cause.

We assume the lowered resistance at any point to be due mainly to an interference with the normal flow of the body fluids and nerve impulses, thus affecting the tone and vital resistance of the part.

This explanation seems simple enough to account for much of

the phenomena we have to deal with, but it certainly cannot explain the observations of certain men in various parts of the country during the past few years.

In Dr. Sluder's recent book on "Nasal Neurology, Headaches and Eye Disorders," he gives a mass of information and observations of such a nature that all previous knowledge seems totally inadequate to explain.

As long as twenty-four years ago, Dr. Sluder found that cocainizing the nasal ganglion (Meckel's) would arrest what he calls "lower half headaches." Since then he and others in various parts of the country, by doing the same thing—injecting cocaine into Meckel's ganglion—have stopped or intercepted symptoms in many parts of the body as follows:

Pain and tenderness in cheek, pain in the eye—iritis, conjunctivitis, glaucoma, etc.; pain in the ear—otitis media; pain behind the ear; pain about the angle of the jaw; glossodymia, pain in the shoulders, arms, fingers, joints, muscles, back, legs, toes, chest, etc.; pain in the uterus and ovaries; pain in the uterus due to cancer; sciatica; hiccough; hay fever; asthma; false angina; lumbago, diarhoea; St. Vitus' dance; ringing in the ears, etc.

"Now the fact that these and other symptoms all over the body have been repeatedly intercepted at the nasal ganglion, viewed from all previous knowledge, is as unexpectd as it is inxplicable."—(Hopkins.)

What makes the puzzle more complete is the fact, as Dr. Byrd of Florida shows, that sciatica can be stopped at times by cocainizing the ganglion on one side; in another case by cocainizing on the other side; and in other cases it does not work by injecting the ganglion on either side. So it is no wonder that Dr. Sluder vests his despair in pondering this phenomena in the following manner:

> "The control through the nasal ganglion of pain which is apparently irrelevant to it, seems to me explicable only by means of the involuntary system that at present is incomprehensible.
>
> "Comprehension of the mechanism of control of pain in one branch of a nerve by anesthesia of another branch at rest is beyond my powers of comprehension."

Dr. Hiram Byrd of Florida now comes forward with a new theory which he calls the theory of pathological currents. This seems to explain all the phenomena observed by Sluder and others—which they find inexplainable.

The theory of pathological currents is quite simple. When this charge or current reaches a certain tension it breaks through the nerve insulation at some point, forming a sort of spark gap.

The theory is that it is this spark at the spark gap, at the point where the charge "shorts," that sets off the trouble. You will note that the point where the trouble is set up does not depend on the location of the battery. The battery (focus of infection(may be either in a tooth tonsil, sinus, gall-bladder, etc., but the manifestation of trouble depends on the location of the spark gap. If the insulation

in the sciatic nerve is poor, when the charge from the battery reaches this point a spark gap will occur, causing sciatica to develop. If the spark gap is in a joint, it will develop arthritis; if in the breathing mechanism, asthma may result; and so forth.

What is the experimental evidence of such a revolutionary idea? It all rests on the ability to turn off the switch, as it were, between the batery and the spark gap. I f, for example, we have an arthritis in a knee-joint caused from an infectious battery in a maxillary sinus, we ought to be able to arrest the pain in the knee by shutting off the impulses coming from the maxillary sinus. This is where the whole proof of the theory centers, because the ability to do this has been demonstrated.

The point at which this can be most conveniently accomplished is at the nasal ganglia. This ganglia functions as a sort of switch-board through which all the impulses from structures forming the nasal block—i. e., tonsils, sinuses, upper teeth, turbinates, etc.,—seem to pass, and all evidence at present rests on the fact of being able to intercept the currents at this point. This is done by injecting cocaine into the ganglion.

This theory of pathological currents actually reverses the direction of nerve impulses as they are ordinarily understood to run. Instead of the nerve current merely setting from the location of distress to the brain and reporting the trouble, as Dr. Hopkins points out, it actually sets *toward* the location of distress and causes the trouble—coming itself from some remote sources not suspected.[1]

> "If the theory be sound, then any symptom in any part of the body, as from the extremities or chest or elsewhere, which is due to a current from some focus in the nasal block, should be interceptible at the nasal ganglion where the provoking current passes through the switch-board. And this is exactly what happens. Again, any symptom within the nasal block itself, due to some incoming current through the switch-board, should be interceptible at the nasal ganglion, and this, too, comes true to expectancy."—(Hopkins.)

The question that does not seem to be answered by those advancing this theory is this. Why do we have these spark gaps, and why is the current short-circuited, as it were, at certain definite points?

I believe the osteopathic theory fits in beautifully right here. The insulation breaks down probabaly because of a lowered resistance of the tissues at this point. The vital energy for proper tone and resistance for some reason has become lowered and the osteopathic lesion interfering with the normal blood and nerve supply with the part may well explain the reason for this condition.

Dr. Burns has shown that a local acidosis is set up around the osteopathic lesion, as it is in any congested area, and this may be one of the factors also that helps lower the resistance and allows the insulation to break down.[2]

We know for instance that the pain in neuritis, say in the arm,

which we strongly suspect coming from a focus of infection, will often be relieved by osteopathic treatment. It will probabaly return if due to this cause, but we can at least temporarily relieve it. Why is this? Probabaly because of our ability to raise the vital tone or resistance necessary to prevent a short circuit or spark gap at this point.

Because we can do this so successfully at times may lead us to suppose the patient cured, when really we ought to be searching further for remote sources of pathology. For this may be the reason that quick and brilliant cures occasionally result later in a recurrence of the trouble.

Some years ago Dr. Fryette published an article in the A. O. A. Journal in which he described the difference in the feel of the tissues from the toxins of bacterial infections—focal infections.[3] He told how a patient had come to him with lumbago, how his treatment would relieve the attack, but later, from apparent exposure, it would return. From the feel of the tissues he detected a toxic irritation, and suspecting the source to be in the teeth, he referred the patient to a dentist. The X-ray revealed two teeth with focal areas of infection, and these were removed. While this relieved the attacks of lumbago considerably, Dr. Fryette insisted there was still some source of infection remaining—the toxic irritation was still present. Sending him back to the dentist for further examination, the X-ray finally revealed another infected tooth, and this was removed. His lumbago then cleared up completely.

A few days later the dentist called up Dr. Fryette and invited him to lunch. Dr. Fryette was busy but inquired what he wanted. "Well," said the dentist, "I'd like to know how in h— you can tell by feeling a man's back that his teeth ought to come out."

Dr. Deason calls the region of the spheno-palatin ganglion the "Hay Fever and Asthma Center," and certainly osteopathic work around this area in many cases has affected these conditions. Is it not possible that the effect has been accomplished by modifying the impulses running through this ganglion in a somewhat similar way to that of injecting cocaine?

Dr. McWilliams is attracting a good deal of attention lately by his claims to influence distant pathology by osteopathic treatment only at the seventh cervicle to third dorsal area. Is it not possible also that he is here interfering with or modifying the pathological currents running through this area as others are doing by intercepting the currents at the nasal ganglion?

If this theory has a basis of fact, we can see how it does not conflict seriously with osteopathic observations, while on the other hand osteopathy would explain some of the phenomena left unsatisfactorily explained at present.

"With this theory in mind, then one will see at a glance how the interception of pain, and other phenomena, is accomplished by turning off the switch at the nasal ganglion, how the interception succeeds every time the current is routed from the battery to the locus of distress via the ganglion; how such interception must fail when-

ever the exciting current is routed other than via the ganglion in question; how the interception of current at the left ganglion, but not the right, could control the pain of cancer of the uterus, the battery being located in the left nasal block; how it controls asthma in one instance on the right side, in another on the left, and in a third not at all, all depending upon the locus of the battery that is furnishing the current. It explains how ear-pain and ear-cough can be controlled through turning off the switch at the nasal ganglion, *always* when, and *only* when the exciting pathological current is routed to the ear via the nasal ganglion. Above all, it offers for the first time an explanation of so-called "referred pains," which as ordinarily used means merely a pain some distance removed from where it is supposed to originate."

It would seem from the above observations that there are still phenomena of importance to be observed and unravelled and that Osteopathy may have a real part in the solution of some of these problems if we are ever alert in applying the newer knowledge which is constantly coming to light.

I heard a teacher in one of our colleges say recently that he believed if a group of men, sufficiently trained, could go over the research work of late years in various parts of the world, enough data could be obtained to demonstrate and prove much of the osteopathic theory without needing to do any research work in our own laboratories at all.

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Osteopaths and Optometrists Should Co-Operate

Dr. J. Henry Hook, *Tacoma, Washington*

THE chairman of the program committee has asked me to give some of my experience of the past years, and one of the things upmost in my mind at this time, and, as far as I know, has not appeared in print, is a relationship between us and the Optometrists.

I believe that the Osteopathic physicians and surgeons generally, are overlooking a big opportunity. While we are seeking to establish ourselves along the trail our beloved founder blazed, we, as a unit, are not taking advantage of the arm extended to help us gain the public recognition we justly deserve.

The American Association of Optometrists are well organized. There are some twenty-five thousand praticing in the United States today, actively engaged in diagnosing, treating and fitting glasses to the eye for the relief of headache, eye strain, etc. A large number of cases having these symptoms consult the optometrist first, believ-

ing it is glasses they need, while in reality they are suffering from some systemic disorder, manifest to them only in the eye.

In accordance with the procedure of most Optometrists, such work is referred to a medical partitioner or oculist. While at the same time, in most cases he knows that the patient will not be referred back to him for his services. The reason these cases are referred to the "M. Ds." is that most Optometrists are not fully aware of the scope of Osteopathy.

They think that we are no better qualified than those imitating Osteopathy. We have not educated them regarding our qualifications.

It is my good fortune to have been associated with a very good optometrist for the past year, and he, like many others, knew very little if anything about osteopathy. However, I took it upon myself to enlighten him, with gratifying results to both of us. I taught him that we are something besides manipulators, and through our acquaintance have come to realize the importance of co-operation, both from the humanitarian standpoint and remunerary.

In my experience I have found that Optometrists and Osteopathists can work together surprisingly well, as we do not clash in any way. They can help us and we can help them, which is an ideal situation.

If they would join hands with us, that we might work together, it not only would give added service to humanity, but we would gain a strong ally as well.

In my association with Optometrists, I find they are a long way from being in love with our medical opponents. The idea struck me that this situation is of international importance, and to start the ball rolling, I prepared a paper and was invited to present it to the Western Washington Optometric Association meeting, November 10, 1928, and with the assistance of Dr. A. B. Ford of Seattle, got the movement started here in the Northwest. Now we are to have joint meetings to perfect our ideas, interlacing our work to mutual advantages.

Osteopaths, Optometrists and Dentists make an ideal combination, for clinical work, because both the latter are very often necessary to complete our examination, and few of us do that work. It is true, the medics have the dentists under their thumb, so to speak, but now and then you find one big enough to sidestep a little and band with us. Such men usually have influence.

I know thta if the Osteopaths would look into the educational requirements of the present-day Optometrist they would be surprised at their advancement. They are not only qualified to examine the eye for glasses, but treat many pathological conditions of that organ, and recognize many systemic disorders as well, including conditions of the nose and throat that need treatment, they do not give, and which should be cleared up before glasses could possibly give best results.

Since my address, which was published in the Optometric Journals and copied in part, in one or more of our own, the "M. Ds."

are making advances toward the Optometrist with a positive effort to "head us off." They now fully realize the advantages in having the Optometrist for an ally. These advances have become very apparent since the publication of my article, as I have seen papers to that effect written by medical men and published in Optometric Journals.

Do you see the hand writing on the wall? What are we going to do about it?

To my mind this should be taken up with our national organization with a view of gaining their support. It certainly can do no harm and can do a great deal of good.

I would like very much to see this move continued on to success. We are going to need all the influence and support we can get in the next decade.

The Value of O. & O. L. to the General Practitioner

Dr. T. M. King

The title of this paper presupposes a value, and if that premise is correct, of *what* value or why *is* the value?

Values are sometimes determined by relationships. The negative of this is illustrated by the experience of a friend of mine, who, for a number of years was president of the Greene County Sunday School Association, the county in which Springfield is located. On one occasion he was conducting a township convention in a village on a Sunday, and during the afternoon a minister of a small congregation in the community, wandered into the meeting, and as one of the speakers on the program failed to appear, my friend thought he saw a pinch-hitter for the occasion and called on the minister to speak on "The relation of his denomination to the Greene County Sunday School Association." The minister arose and said, "My denomination (naming it) is in no way related to the Greene County Sunday School Association, neither by propinquity nor consanguinity."

Well, the O. & O. L. *is* related to the general practitioner both by propinquity and consanguinity because of the relation of both to the A. O. A.

Having been in general practice for about twenty years before taking up the work of the specialist, will you overlook the personal pronoun, and allow me to represent the general practitioner and then indicate the value the O. & O. L. *has* been and *is* to me.

First then, you who have had experience, and all of you have, know how embarrassing it is to diagnose a trouble properly belonging to the specialist, and then to turn that case over to our friends—the medical specialist—knowing that as conditions now are that we will not be allowed to see that patient again till it is away from that practitioner's care. Or, as it was in the earlier years, while we were al-

lowed to go to the hospital and witness the operation, yet the atmosphere frequently was so "chilly' 'that we almost wished we hadn't gone, and for these very reasons we sometimes convinced ourselves that the patient didn't need the care of a specialist—when deep in our heart we knew he did—and so tried to "get by" until finally the patient, himself, took the case out of our hands and went to a specialist with it, and we were denounced for not recognizing a specialty case and recommending a specialist.

So the O. & O. L., by furnishing the Osteopathic specialist, has helped me to maintain my professional self-respect and at the same time keep my patient under Osteopathic care to *his* great benefit and the credit of Osteopathy.

In the second place the O. & O. L. has furnished me the opportunity of association with those of our profession who have spent the best years of their lives trying to solve the problems peculiar to Otology and Oto-Laryngology—such men as Edwards, Ruddy, Deasen, Goodfellow, Reed, Watters, Larimer, Brill, LaRue, Brann, and a goodly number of others, and from such association glean the necessary training and experience that is proving valuable to me in my present work.

Knowing that every practitioner in the field has suffered at the hands of the medical specialist it is difficult to understand why some of our own profession persist in encouraging their patients to go to the medical specialist even when there is a specialist of their own profession available, but such is the case.

Some one may make the excuse that the Osteopathic specialist is not as competent—why they have that idea is difficult to understand, but they seem to have it—but when you look at the work done by some, so-called, very good medical specialists, you need not fear that it could be done worse by an Osteopath.

And that leads me to say that if the Osteopathic specialist follows closely the principles of the work as promulgated by the O. & O. L., and then follows the demonstrations of the specialists mentioned earlier, they can do just as creditable work as is being done anywhere, and Osteopathy will be advanced instead of retarded. We, oftentimes, are our own worst enemies and it is surprising the number of Eye, Ear, Nose and Throat conditions that are overlooked by good physicians.

As a general practitioner I have all faith in the restorative properties of Osteopathy plus proper diet, and we are all much gratified at the number of very satisfactory results we get, and yet a case that recently came under my observation clearly demonstrates the fact that other means are at times necessary. A gentleman, who looks the picture of health, and seems to feel as he looks, told me that five or six years ago he was down and out physically, when some one called his attention to the value of physical culture and diet. From that time on he has carefully dieted and taken physical exercises regularly with the result as already stated, and yet examination exhibited pus in both tonsils and lots of it.

From the standpoint of the general practitioner I should have

pronounced him a well man but from the standpoint of the O. & O. L. I know that until these diseased tonsils are removed he is not a well man, and sooner or later he will suffer the consequences of absorbed toxins from his tonsils, and I presume I would not have looked carefully at his tonsils had it not been for the influence of the O. & O. L. It is so very easy to overlook what you are not specially looking for.

So many, so-called, systemic conditions are brought about as the result of focal infections and the general practitioner will benefit his patient, and himself as well, just to the extent that he avails himself of the opportunities afforded him through the work of the O. & O. L.

The stimulus to more extensive and intensive study has been of great value to me as a general practitioner for in delving into the field of the specialist, with its necessary minutia of detail, it became apparent that a deeper knowledge of the anatomy as a whole was necessary in order to a more successful meeting of the incidents of a general practice.

The importance of focal infection first became fully apparent to me as I listened to members of the O. & O. L. lecturing on those conditions in just such meetings as the present one. Perhaps in time I could have gotten it elsewhere but here it was presented in its seriousness and its dangers so emphasized that at once the necessity for studying such conditions in all their ramifications became apparent.

The value, then, is first in the stimulus to a more careful diagnosis, and the placing of the patient in competent hands—Osteopathic hands if possible—where it properly belongs. It came to the Osteopath in the first place because of its confidence in the profession and should be allowed to remain there.

The Second value is in the association with those of our own number who are capable, willing, and happy to co-operate with us.

And the Third value is in the stimulus to more extensive and intensive study to the end that our patients may have care the equal of any to be obtained anywhere.

Asthma and Hay Fever

By C. E. Abegglen, *Colfax, Ohio*

THE great trouble in the treatment of Asthma is that a special cause has never been demonstrated. All sorts of theories have been advanced by writers, both osteopathic and medical, none of which seem to have stood the test of time.

The theory of a neurosis, the acceptance of pollens as primary causes, fascinating as they seem to have been in many respects, vanish under the scrutiny of critical analysis and clinical investigation as untenable hypotheses.

The test of any theory of a causative factor of disease is therapy. It is not for us to go so much into the theory of etiology at this particular time as it is to tell what is offered in the way of treatment from the viewpoint of a physiotherapist.

Major Wm. H. Allen, U. S. Army tested twelve out of thirty-three asthmatics for protein sensitization toward certain pollen, bacteria, and animal hairs, and found positive reaction, but the therapeutic test proved negative.

The relation of exposures to the offending materials and asthmatic attacks could not be established."

Maxwell saw positive cutaneous reactions in forty-eight out of ninety-seven asthma patients and claims sixty-five percent of cures. Cauldfield was disappointed with the test in bronchial asthma, and became convinced that there are other causes than sensitization to a specific protein or pollen.

Vander Veer, with an experience of our 2,000 cases of hay fever and asthma, doubts the ability to induce permanent immunity with protein therapy. With this array of evidence against the protein theory of treatment we must look to someone else, and so we turn to physiotherapy.

The prime object in the treatment of ahthma is the removal of the cause of irritation. One of the treatments we offer is with diathermy. Place a large block tin electrode (6 by 8) over the upper dorsal spines, another of the same size, or a little smaller, and place over the sternum, 500 milliampers for about five minutes, then gradually increase to toleration for about twenty minutes. Spasmodic asthma is due to sudden contraction of the circular fibers, and consequent narrowing of the bronchial tubes. To relax this condition is the purpose of physiotherapy.

With hay fever, as with asthma there are about as many causes as there are practitioners who treat this disease, and about as many remedies. Until recently, the literature contained meager accounts regarding the underlying etiology basis for hay fever.

Hay fever has been recognized either as perennial or seasonal. The first is known as "all year round" hay faver, the latter type is commonly designated by the month of the year or by the peculiar pollen or flower, which is looming and is liable to produce the excitation.

So we hear of "spring fever," "rose cold," "June or July cold," "Autumnal catarrh" or "fall fever."

We shall not enter into a discussion of the cause, symptoms, but treatment a physiotherapist viewpoint.

Unless contraindications have been determined by the various measures, the primary aim is to relieve the acute symptoms. In the perennial type this is easily accomplished.

Beck and Pollock recently reported the results obtained in treating a series of twenty-five cases of true hyperesthetic rhinitis with general ultra violet radiations. Most of the cases were from one to five years duration. The clinical symptoms disappeared completely in all of the patients and only in one did a recurrence appear. This came on suddenly about six weeks after treatment was discontinued, just as severe as ever. The patient was again placed on the treatment and after twelve exposures, all clinical symptoms again disappeared. Seasonal hay fever requires local measures in addition to general ones.

Many cases will never get well until the nasal obstructions are

corrected. Recently we read where one of the medical men said he never saw a case of hay fever who had a normal nose. Our experience has about borne out this experience.

There have been improvements in the methods in using physiotherapy measures the same as any other. A mono-terminal, Tesla or Oudin current is administered to the point of toleration. As it is conducted by a non-vacuum electrode, the first effect is heat. It is a surface heat and serves two ways desensitizing to some degree, and prepares the nasal mucosa for more intensive penetration of the ultra violet rays. Diathermy undoubtedly adds to the healing state of the membrane. Heat is known as one of the most powerful germisides and, as such, tends to keep the surface area free from bacteria. We are beginning to believe that the treatment of hay fever by physical means comes as near being specific as any remedy that has yet been devised.

Dr. C. M. Sampson, of New York, author of "The Practice of Physio-Therapy," gives some wonderful results in the treatment of Hay Fever, which would be worth any one's time to study.

LETTERS *to the* EDITOR

January 22, 1930.

Dr. Chas. LaRue, 749 E. Broad St., Columbus, Ohio.

My Dear Dr. LaRue:

For some time I have desired to write you and congratulate you on the success of the O. and O. L. Journal as its editor. The subject matter is well arranged and each article is well given and discussed on every page of our journal. It shows that you are on the job all of the time and I for one certainly appreciate what you are doing as editor of the journal. Let's hope that it continues as good as it has been in the past. Fraternally,

Will O. Medaris, D. O.

Dr. Charles M. LaRue, 749 East Broad St., Columbus, Ohio.

Dear Doctor:

The current issue of our Journal arrived a few days ago. It strikes me as being better than ever. I wondered at the Des Moines convention who was going to be the "goat." I assure you that I was happy to see your name and face as the Editor for the coming year.

When the next issue of the O. & O.-L. arrives I will again think of the midnight oil you burned and your sleepless nights that made the issue possible.

Fraternally and vigorously yours,

W. J. Siemens.

P. S.—Seattle 1931!!!

Attention---

1930 O. & O. L. CONVENTION

at

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and

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Next issue will be an 80-page magazine, giving all details of the Convention and the program in full.

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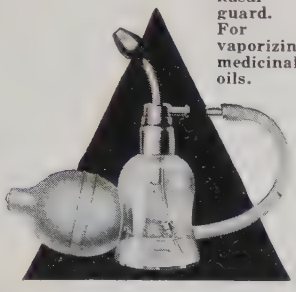

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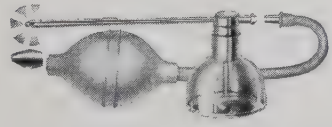

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